

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

REX – Real Estate Exchange, Inc.,

Case No. 2:21-cv-00312

Plaintiff,

v.

ZILLOW, INC., ZILLOW GROUP, INC.,
ZILLOW HOMES, INC., ZILLOW
LISTING SERVICES, INC., ZILLOW
GROUP MARKETPLACE, INC., TRULIA,
LLC, THE NATIONAL ASSOCIATION OF
REALTORS,

DECLARATION OF W. ROBERT
MAJURE IN SUPPORT OF MOTION
FOR PRELIMINARY INJUNCTION

Defendants.

I, W. ROBERT MAJURE, declare as follows:

1. I am over the age of 18, have personal knowledge of the facts stated in this declaration and am competent to testify thereto.
2. I have been retained as an expert in economic analysis of competition by Plaintiff, REX – Real Estate Exchange, Inc., in connection with the above-captioned case.
3. I have a Ph.D. in Economics from the Massachusetts Institute of Technology, and a B.A. in Economics and Mathematics from the University of Virginia.
4. I am currently a Vice President at Cornerstone Research, a firm that provides economic and financial consulting and expert testimony.

5. Prior to joining Cornerstone Research, I worked for approximately 25 years in the Antitrust Division of the United States Department of Justice. During my tenure at the Department of Justice, I served as an economist, Assistant Section Chief, Section Chief, and ultimately as the Director of Economics.

6. As the Director of Economics—a position I held from 2010 to 2018—I was responsible for managing the Department of Justice’s economic analysis of antitrust cases. I also worked closely with the Deputy Assistant Attorney General for Economics to assess the merits of economic analyses presented to the Department of Justice and to inform the Assistant Attorney General on enforcement decisions.

7. While at the Department of Justice, I performed and supervised economic analyses of competition issues in various industries, including real estate. I also submitted expert testimony in various cases, and served on the committee that drafted the 2010 Horizontal Merger Guidelines.

8. I have applied my training and experience as an economist to the issues and facts in this case as requested by Plaintiff. Attached as **Exhibit A** is a true and correct copy of the expert report I prepared containing a summary of the opinions I would render if I was called to testify in this case. My opinions are based on the facts identified in the report and documents and other information summarized in Appendix B to this expert report. A copy of my current curriculum vitae is attached as Appendix A to this expert report.

9. Applying well-accepted economic principles and methods to the facts of this case, and based on my expertise and analysis in this matter, the summary of my opinions is as follows:

- a. The relevant market in which Defendant NAR’s members, as well as Plaintiff REX, operate is the provision of real estate brokerage services. This product

market is a well-defined market and has been accepted by numerous Courts. The geographic markets for brokerage services are generally local and bounded by the area serviced by an MLS. Defendant NAR's members possess market power, as has been confirmed by several courts, and, as reflected in the relatively high commission fees charged by NAR members.

- b. Defendant Zillow is also a participant in the relevant market, and also provides an input, its service as an online aggregator of available properties, which affects transactions conducted by many other market participants. Control of this input gives Zillow power to influence the market far beyond its share as an individual participant.
- c. My analysis of REX data reveals that Defendants' actions are associated with a sharp reduction in REX's ability to compete with NAR members in the market for real estate brokerage services. Namely, after Defendant actions disfavored REX's listings on Zillow, REX experienced significant reductions in the buyer interest it could generate without co-listing properties with an MLS member.
- d. Consumers are likely to be irreparably harmed by the reduction in REX's ability to compete with NAR members. Based on my analysis, REX's model results in lower average combined commissions for residential real estate transactions compared to properties listed on an MLS and thus exerts competitive pressure on NAR members.
- e. Defendants' actions will likely cause irreparable harm to REX and its ability to bring competitive pressure on real estate brokerage commissions enjoyed by NAR members. Because Defendants have impeded REX's ability to sell homes outside

of the MLS and outside the policies promulgated by NAR to govern competition among MLS members, REX has struggled to generate new leads for seller listings and to maintain the competitive pressure of its MLS-independent business model. As a result, if the disfavoring of REX's listings on Zillow is allowed to continue, REX will lose its opportunity to establish a reputation as an innovative option for sellers and the competitive discipline REX has been bringing to real estate brokerage service will not develop.

I declare under the penalty of perjury under the laws of the United States that the foregoing is true and correct.

EXECUTED in Falls Church, Virginia, this 9th day of March, 2021.



W. Robert Majure

CERTIFICATE OF SERVICE

I certify that on March 9, 2021, I electronically filed the foregoing document with the Clerk of the Court via CM/ECF which will notify all parties in this matter who are registered with the Court's CM/ECF filing system of such filing. All other parties (if any) shall be served in accordance with the Federal Rules of Civil Procedure.

DATED this 9th day of March, 2021.

s/Michelle Stark
Michelle Stark

EXHIBIT A

**UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE**

REX – REAL ESTATE EXCHANGE, INC., a
Delaware corporation,

Plaintiff,

v.

ZILLOW, INC., a Washington corporation;
ZILLOW GROUP, INC., a Washington
corporation; ZILLOW HOMES, INC., a
Delaware corporation; ZILLOW LISTING
SERVICES, INC., a Washington corporation;
ZILLOW GROUP MARKETPLACE, INC., a
Washington corporation; TRULIA, LLC, a
Delaware limited liability company; and THE
NATIONAL ASSOCIATION OF REALTORS,
an Illinois trade association,

Defendants.

CASE NO. _____

EXPERT REPORT OF W. ROBERT MAJURE, PH.D.

March 9, 2021

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I. Qualifications

1. My name is W. Robert Majure. I am a Vice President at Cornerstone Research. Prior to joining Cornerstone Research, I worked for approximately 25 years in the Antitrust Division of the U.S. Department of Justice (“DOJ”) as an economist, Assistant Section Chief, Section Chief, and ultimately as the Director of Economics.
2. From 2010 to 2018, as Director of Economics, I worked in the Office of the Assistant Attorney General for the Antitrust Division. I was responsible for managing the DOJ’s economic analysis of antitrust cases. I also worked closely with the Deputy Assistant Attorney General for Economics to assess the merits of economic analyses presented to the DOJ and to inform the Assistant Attorney General on enforcement decisions. When the position of Deputy Assistant Attorney General for Economics was vacant, I fulfilled the duties of that position and helped inform senior DOJ leadership on antitrust enforcement and policy decisions.
3. While at the DOJ, I performed and supervised economic analyses of competition issues in various industries including telecommunications, banking, computer software and hardware, transportation, heavy industry, mining and drilling, healthcare, entertainment, and real estate. Examples of the real estate matters I have worked on are *U.S. v. National Association of Realtors*¹ and *U.S. v. Consolidated Multiple Listing Service*.² I submitted testimony on competitive effects in the merger of the Union Pacific and Southern Pacific Railroads and on the suitability of remedy in *U.S. v. SBC Communications Inc. and AT&T Corp.*³ and *U.S. v. Verizon Communications Inc. and MCI, Inc.*⁴ I also served on the committee that drafted the 2010 Horizontal Merger Guidelines. I received awards for my work at the DOJ, including Presidential recognition for my contributions as a senior executive of the civil service.
4. A copy of my curriculum vitae is attached as **Appendix A**.

¹ *U.S. v. National Association of Realtors*, United States District Court for the Northern District of Illinois Eastern Division, Case No. 05C-5140, September 8, 2005.

² *U.S. v. Consolidated Multiple Listings Service, Inc.*, United States District Court for the District of South Carolina Columbia Division, Case No. 3:08-cv-01768-SB, May 2, 2008.

³ Declaration of Dr. W. Robert Majure, *U.S. v. SBC Communications Inc. and AT&T Corp.*, United States District Court for the District of Columbia, Case No. 1:05-cv-02102, August 9, 2006.

⁴ Declaration of Dr. W. Robert Majure, *U.S. v. Verizon Communications Inc. and MCI, INC.*, United States District Court for the District of Columbia, Case No. 1:05-cv-02103, August 9, 2006.

II. Allegations

5. My understanding of the allegations are as follows. In September 2020, Zillow announced that it would become a participant in NAR and Multiple Listing Services (“MLSs”) across the U.S. and begin utilizing MLS Internet Data Exchange (“IDX”) feeds as the source of the MLS listings it displays on its and associated webpages.⁵

6. Local MLSs are usually governed by Realtors®, members of NAR. As will be discussed, NAR promulgates rules that local MLSs largely adopt,⁶ including rules pertaining to their IDX feeds. One such optional rule that some MLSs have adopted is that:

Listings obtained through IDX feeds from Realtor® Association MLSs where the MLS participant holds participatory rights must be displayed separately from listings obtained from other sources. Listings obtained from other sources (e.g., from other MLSs, from non-participating brokers, etc.) must display the source from which each such listing was obtained.* (Amended 05/17) [O].⁷

7. Accordingly, and as part of the announcement in September 2020, Zillow stated that “[f]or compliance reasons, gaining access to these IDX feeds requires us to make some adjustments.”⁸ Among other changes, Zillow stated that now “[a]gent listings [will be] front-and-center [on Zillow]. ... we’re introducing a new search toggle to make it easier to filter

⁵ “Creating a Better Real Estate Experience,” Zillow, <https://www.zillow.com/agent-resources/blog/creating-a-better-real-estate-experience/>.

⁶ There are consequences to an MLS if it fails to comply with mandatory NAR rules. The MLS Handbook explains: “Those associations or multiple listing services found by the National Association to be operating under bylaws or rules and regulations not approved by the National Association are not entitled to errors and omissions insurance coverage and their charters are subject to review and revocation.” See “Handbook on Multiple Listing Policy,” National Association of Realtors, 2021, https://cdn.nar.realtor/sites/default/files/documents/2021_NAR_HMLP_210112.pdf (“NAR 2021 Handbook”), Section 2, p. 8.

⁷ NAR 2021 Handbook, Section 18.3.11, p. 86. See also NAR 2021 Handbook, Section 1, 7.58, “MLSs cannot prohibit participants from downloading and displaying or framing other brokers’ listings obtained from other sources, e.g., other MLSs, non-participating brokers, etc., but can, as a matter of local option, require that listings obtained through IDX feeds from REALTOR® Association MLSs be searched separately from listings obtained from other sources. (Amended 11/14) Note: An MLS participant (or where permitted locally, an MLS subscriber) may co-mingle the listings of other brokers received in an IDX feed with listings available from other MLS IDX feeds, provided all such displays are consistent with the IDX rules, and the MLS participant (or MLS subscriber) holds participatory rights in those MLSs. As used in this policy, “co-mingling” means that consumers are able to execute a single property search of multiple IDX data feeds resulting in the display of IDX information from each of the MLSs on a single search results page; and that participants may display listings from each IDX feed on a single webpage or display. (Adopted 11/14).”

⁸ “Creating a Better Real Estate Experience,” Zillow, <https://www.zillow.com/agent-resources/blog/creating-a-better-real-estate-experience/>.

between agent listings and other listings.”⁹ I understand that, at that time, Zillow did not specify how it would define “agent” versus “other” listings.

8. I understand that on January 12, 2021, Zillow changed its display and search interface to disfavor non-MLS listings by creating two separate search tabs – one for “Agent” and one for “Other” listings. The “Agent” tab is activated by default when a user browses Zillow. Zillow moved Plaintiff REX Homes (“REX”) listings from the “Agent” tab to the “Other” tab. A Zillow user must, under the new display policy, locate and click on the “Other” tab in order to see REX and other non-MLS listings. A similar change was made on Trulia.¹⁰

9. According to REX, Zillow and its associated sites’ implementation of NAR’s requirement that non-MLS listings be separated has sharply impacted Zillow views of REX listed properties, impairing REX’s ability to execute its innovative and disruptive business model and hence compete with NAR members.

III. Assignment

10. I have been asked by counsel for REX to provide an analysis of:

- The definition of the relevant antitrust markets within which to assess REX’s claims from an economic standpoint and indications that Defendant National Association of Realtors’® (NAR) members have market power within such markets;
- The effect on competition in the relevant markets of Realtors’® agreements, as promulgated in policies of their trade association NAR, that govern online displays involving competitors’ listings; the extension of those agreements to include Zillow; and Zillow’s actions to comply with the policies in exchange for access to MLS data; and
- Whether the Defendants’ actions are causing and will continue to cause irreparable harm to consumers and to REX.

11. Cornerstone Research charges my standard billing rate of \$900 per hour for my work related to this matter. A list of the materials I have considered in forming my opinions is cited throughout my report and included as **Appendix B**. My work on this matter is ongoing, and I

⁹ “Creating a Better Real Estate Experience,” Zillow, <https://www.zillow.com/agent-resources/blog/creating-a-better-real-estate-experience/>.

¹⁰ See, e.g. “Seattle, WA Homes For Sale & Real Estate,” Trulia, <https://www.trulia.com/WA/Seattle/>.

reserve the right to supplement my opinions in the event that additional materials come to light or are provided to me or submitted in connection with this matter.

IV. Summary of Opinions

12. Based on my expertise and analysis in this matter, I find that:

- The relevant market in which Defendant NAR's members, as well as Plaintiff REX, operate is the provision of real estate brokerage services. This product market is a well-defined market and has been accepted by numerous Courts. The geographic markets for brokerage services are generally local and bounded by the area serviced by an MLS. Defendant NAR's members possess market power, as has been confirmed by several courts, and, as reflected in the relatively high commission fees charged by NAR members.
- Defendant Zillow is also a participant in the relevant market, and also provides an input, its service as an online aggregator of available properties, which affects transactions conducted by many other market participants. Control of this input gives Zillow power to influence the market far beyond its share as an individual participant.
- My analysis of REX data reveals that Defendants' actions are associated with a sharp reduction in REX's ability to compete with NAR members in the market for real estate brokerage services. Namely, after Defendant actions disfavored REX's listings on Zillow, REX experienced significant reductions in the buyer interest it could generate without co-listing properties with an MLS member.
- Consumers are likely to be irreparably harmed by the reduction in REX's ability to compete with NAR members. Based on my analysis, REX's model results in lower average combined commissions for residential real estate transactions compared to properties listed on an MLS and thus exerts competitive pressure on NAR members.
- Defendants' actions will likely cause irreparable harm to REX and its ability to bring competitive pressure on real estate brokerage commissions enjoyed by NAR members. Because Defendants have impeded REX's ability to sell homes outside of the MLS and outside the policies promulgated by NAR to govern competition among MLS members, REX has struggled to generate new leads for seller listings and to maintain the competitive pressure of its MLS-independent business model. As a result, if the disfavoring of REX's listings on Zillow is allowed to continue, REX will lose its opportunity to establish a reputation as an innovative option for sellers and the competitive discipline REX has been bringing to real estate brokerage service will not develop.

V. Background

A. Market Participants

13. Different types of participants help facilitate transactions in the U.S. residential real estate brokerage market, including real estate agents and brokers. Real estate agents are licensed professionals who provide services to help buyers and sellers effectuate real estate transactions, including buying, selling, or renting housing.¹¹ A real estate agent can work for buyers (“buyer’s agent”) or sellers (“seller’s agent” or “listing agent”).^{12,13} Most agents perform each role at times but, given the particular tasks and skills involved, some specialize as one or the other.¹⁴ The responsibilities of a buyer’s agent may include searching for homes for their clients and negotiating offers. The responsibilities of a seller’s agent may include pricing client homes, staging and marketing homes, negotiating with buyers, and overseeing closing procedures.¹⁵

14. Real estate brokers are agents who have completed additional training on topics such as ethics, contracts, and taxes, and have additional licensing. Typically, a licensed real estate agent must have three years’ experience before obtaining a broker’s license. Real estate agents typically work under a sponsoring broker or brokerage firm.¹⁶

15. Both brokers and real estate agents can participate in the National Association of Realtors® (NAR), “America’s largest trade association.”¹⁷ In order to join NAR, a licensed agent must meet the professional requirements of their position, e.g. real estate agent or broker, pass a course on the NAR Code of Ethics every four years, and pay annual dues.¹⁸ In addition, an agent must first become a member of a local Realtor® association before gaining membership

¹¹ “Real Estate Agent, Broker, Realtor: What’s the Difference?” *Realtor.com*, July 20, 2020, <https://www.realtor.com/advice/buy/whats-difference-real-estate-salesperson-broker/> (“Realtor.com 2020 Article”).

¹² “Real Estate Agents vs. Brokers: What’s The Difference?” *Zillow*, October 9, 2019, <https://www.zillow.com/agent-resources/blog/real-estate-broker-vs-agent/> (“Zillow 2019 Article”).

¹³ Where allowed by local regulators, a real estate agent can also act as a “dual agent,” representing both buyer and seller in the same transactions. See “What is Dual Agency?” *Trulia*, <https://www.trulia.com/blog/what-is-dual-agency/>.

¹⁴ Zillow 2019 Article.

¹⁵ Realtor.com 2020 Article; Zillow 2019 Article.

¹⁶ Zillow 2019 Article.

¹⁷ “Who We R: About NAR,” *National Association of Realtors*, <https://www.nar.realtor/about-nar>.

¹⁸ “How to Join NAR,” *National Association of Realtors*, <https://www.nar.realtor/membership/how-to-join-nar>; “Real Estate Agents vs. Realtors vs. Brokers: What’s The Difference,” *RE/MAX*, December 9, 2019, <https://www.maxrealestateexposure.com/real-estate-agents-realtors-brokers/>.

to NAR.¹⁹ The specific title Realtor® is reserved for agents and brokers who are members of NAR.

B. Multiple Listings Service and Internet Data Exchange

16. Agents representing a seller succeed by finding a buyer for the property and agents representing a buyer succeed by finding a seller of a desired property. According to NAR's history of the industry, starting as early as the late 1800s, real estate brokers and associated agents would gather to share information about the properties they represented and connect with other brokers who could help them find buyers. In these meetings, the agents with properties for sale agreed to compensate other agents who aided in a sale. Today, NAR members operate many MLSs, private databases with rules for participation that codify the terms of the exchange of information and of compensation to other members.²⁰ Under NAR policies, participants in an MLS "make blanket unilateral offers of compensation to other participants."²¹ In an era without the Internet, MLSs were an important way that brokers helped clients buy and sell their properties.²² As of 2020, 597 MLSs operated in the U.S.²³

17. In 2000, with the proliferation of the Internet and real estate brokerage websites, NAR developed the Internet Data Exchange (IDX), which represented "the next stage in the evolution of MLS."²⁴ Through IDX, MLS participants are given the "ability to authorize limited electronic display of their listings by other Participants,"²⁵ thereby enabling brokers to agree to display each other's MLS listings on their websites. Each MLS participant controls its own contributions to the IDX and can opt in or opt out of allowing its listing to be displayed by other MLS participants.²⁶ As such, the IDX is a form of access to the MLS with additional policies and rules for participation on top of those already governing the MLS.

¹⁹ "How to Join NAR," *National Association of Realtors*, <https://www.nar.realtor/membership/how-to-join-nar>.

²⁰ "What is MLS?" *National Association of Realtors*, <https://www.nar.realtor/nar-doj-settlement/multiple-listing-service-mls-what-is-it>.

²¹ NAR 2021 Handbook, Section 1.

²² "What is MLS?" *National Association of Realtors*, <https://www.nar.realtor/nar-doj-settlement/multiple-listing-service-mls-what-is-it>.

²³ "Multiple Listing Service: What is an MLS and How Many MLSs Are There?" *RESO*, <https://www.reso.org/mls-faq/>.

²⁴ "Internet Data Exchange (IDX) Background and FAQ," *National Association of Realtors*, <https://www.nar.realtor/about-nar/policies/internet-data-exchange-idx/internet-data-exchange-idx-background-and-faq> ("Internet Data Exchange (IDX) Background and FAQ").

²⁵ Internet Data Exchange (IDX) Background and FAQ.

²⁶ Internet Data Exchange (IDX) Background and FAQ.

18. NAR governs the overarching MLS and IDX rules, and releases an updated handbook each year outlining agreed upon policies.²⁷ The handbook documents policies related to a range of topics from participants' rights to how to manage and display different types of property listings. NAR's handbook also notes which rules are mandatory, recommended, or optional for local MLSs. As such, local MLSs' policies can vary based on which rules they choose to adopt. One mandatory rule is that any seller agent who shares a listing on the MLS/IDX must simultaneously disclose the compensation that he or she will pay to a buyer's agent when the home is sold.²⁸ The rule requiring that any property information sourced outside of the MLS data has to be displayed separately from MLS data is one of the optional rules.²⁹ Zillow has stated that it can customize its website "to accommodate differences between MLS rules."³⁰ Nevertheless, the website redesign segregating non-MLS listings to the "Other" tab appears to have been applied consistently in all geographies in which REX operates.

C. Pricing

19. In accordance with NAR rules governing MLS,³¹ in a typical residential real estate transaction, buyer and seller agents are compensated by earning a commission that is a set percentage of the transaction price on the property their client buys or sells.³² Generally, when hiring a selling agent, the seller agrees to a commission to be paid upon sale to the agent and also agrees on a commission to be offered for any buyer's agent and which the seller also pays upon a successful sale.³³ Under this framework, sellers have an incentive to offer a typical or customary commission rather than risk the possibility that buyers' agents might not show the property to buyers.³⁴ Likewise, the framework creates an incentive for buyers to work with an agent since

²⁷ See e.g., NAR 2021 Handbook.

²⁸ See NAR 2021 Handbook, Section G.1, Policy Statement 7.23, "In filing property with the multiple listing service, participants make blanket unilateral offers of compensation to the other MLS participants and shall therefore specify on each listing filed with the service the compensation being offered by the listing broker to the other MLS participants."

²⁹ See NAR 2021 Handbook, Section 18.3.11.

³⁰ Zillow, SEC Form 10-K for Period Ended December 31, 2020, Filed on February 12, 2021.

³¹ See NAR 2021 Handbook, Section 7.23, pp. 37–38.

³² "The Real Estate Commission: A Guide to Who Pays, How Much, and More," *Realtor.com*, <https://www.realtor.com/advice/sell/real-estate-commission-explained/>.

³³ "The Real Estate Commission: A Guide to Who Pays, How Much, and More," *Realtor.com*, <https://www.realtor.com/advice/sell/real-estate-commission-explained/>; Realtor.com 2020 Article; "How Do Realtors Get Paid? What Buyers and Sellers Need To Know," *Clever*, <https://listwithclever.com/real-estate-blog/how-do-realtors-get-paid-what-buyers-and-sellers-need-to-know/>.

³⁴ See also Barwick, P. J. and M. Wong (2019), "Competition in the Real Estate Brokerage Industry: A Critical Review," *Brookings Economic Studies*, p. 11.

the customary commission is part of the offer. Together, these incentives tend to be self-reinforcing as the sellers' incentive to stick with a customary commission offer is highest when all buyers are relying on an MLS-affiliated agent to help them identify properties. As will be discussed in Section VIII of this report, total agent commissions for a transaction are typically between 5% and 6%, with approximately half of the commission compensating the buyer agent and half of the commission compensating the seller agent.³⁵

20. Recent years have seen the emergence of “discount” brokers advertising lower commissions for their agents and typically offering a limited set of seller services.³⁶ One example of such “discount” brokers is Redfin, which offers a 1.5% seller agent commission for homes sold with a Redfin agent, providing a 1.0 to 1.5 percentage point discount relative to the typical 2.5% to 3% paid as seller agent commission.³⁷ Discount brokers that offer lower seller agent fees, such as Redfin, typically list homes on MLSs and require sellers to still pay the customary buyer agent commission of 2.5% to 3%, for a total commission of 3.5% to 4.5%.³⁸ A minority of home sellers use discount brokers. In 2020, according to NAR reports, 6% of sellers using real estate agents only had the agent list their home on the MLS and “perform[] few if any additional services” and another 6% procured a “limited set of services as requested by the seller.” The rest of sellers (88%) received “a broad range of services and management of most aspects of the home sale.”³⁹

D. Real Estate Aggregators

21. The 2000s also saw the emergence and subsequent growth in popularity of online real estate aggregators displaying properties for sale. Third party aggregators with the right expertise created websites that displayed searchable listings in a user-friendly manner and collected useful area- and property-related information alongside listings, such as neighborhood characteristics or

³⁵ “Real-Estate Agent Commissions Around the World,” *The Wall Street Journal*, https://graphics.wsj.com/table/commish_1016; Realtor.com 2020 Article.

³⁶ “Competition in the Real Estate Brokerage Industry,” Federal Trade Commission and U.S. Department of Justice Report, April 2007, <https://www.justice.gov/atr/competition-real-estate-brokerage-industry#II>.

³⁷ “Redfin: Save \$8,600 When You Buy and Sell with Redfin,” *Redfin*, <https://www.redfin.com/services/buy-and-sell-with-redfin-to-save-even-more>.

³⁸ “What is a Multiple Listing Service (MLS)?” *Redfin*, <https://www.redfin.com/definition/Multiple-Listing-Service>; “Save Thousands With Redfin,” *Redfin*, <https://www.redfin.com/why-redfin-how-you-save>.

³⁹ Exhibit 7–6: Level of Service Provided by the Real Estate Agent, “2020 Profile of Home Buyers and Sellers,” *National Association of Realtors*, https://www.nar.com/images/uploads/2020_NAR_Consumer_Profile.pdf (“NAR 2020 Profile of Home Buyers and Sellers”).

maps.⁴⁰ User-friendly and widely informative aggregators quickly gained a large share of online traffic.⁴¹

22. If not part of an MLS, aggregators had freedom over how to display their listings, but could not rely on IDX feeds to provide them with data.⁴² To access listing information, these aggregators would have to collect their data in different ways, which usually involved convincing individual agents, brokers, and MLSs to display listings on the site as a means of free and widespread publicity, or purchasing MLS data through syndicators.⁴³ Examples of such aggregators, until recently, are Zillow and Trulia. In January 2021, Zillow was the most popular real estate website in the United States, claiming as many as 277.5 million monthly visits.⁴⁴ Trulia had approximately 61.7 million monthly visits.⁴⁵

23. There are several other popular online aggregators. Realtor.com “is the official site of the National Association of REALTORS®” and is operated by Move, Inc., which is a subsidiary of News Corp.⁴⁶ Realtor.com only displays listings from MLSs, and receives its data from MLS IDX feeds.⁴⁷ As of January 2021, realtor.com was the second most popular real estate website in the U.S. after Zillow, with approximately 156.2 million monthly visits.⁴⁸ Redfin, the third most visited website in January 2021, had monthly visits of 80.9 million.⁴⁹ The chart below, **Exhibit 1**, compares monthly visits to different real estate websites.

⁴⁰ “Real Estate Websites and UI: What Makes Them Tick?” Redkite, <https://redkite.com.ph/real-estate-websites-ui-makes-tick/>.

⁴¹ “Top 10 Best Real Estate Websites That Showcase Successful Lead Generation,” DesignRush, <https://www.designrush.com/trends/10-intuitive-real-estate-websites-that-showcase-successful-lead-generation>. Zillow, Trulia, and Realtor.com each had been able to attract more unique online visitors than all the major brokerages/brands combined in 2012. See “Friend or Foe? The Battle with Third Party Aggregators,” http://www.narep.net/downloads/Friend_or_Foe_The_Battle_with_Third_Party_Aggregators.pdf.

⁴² “IDX & The Evolution of Online Real Estate,” DeanKnows, <https://deanknows.com/real-estate/idx-the-evolution-of-online-real-estate/>.

⁴³ “IDX & The Evolution of Online Real Estate,” DeanKnows, <https://deanknows.com/real-estate/idx-the-evolution-of-online-real-estate/>.

⁴⁴ See **Exhibit 1**.

⁴⁵ See **Exhibit 1**.

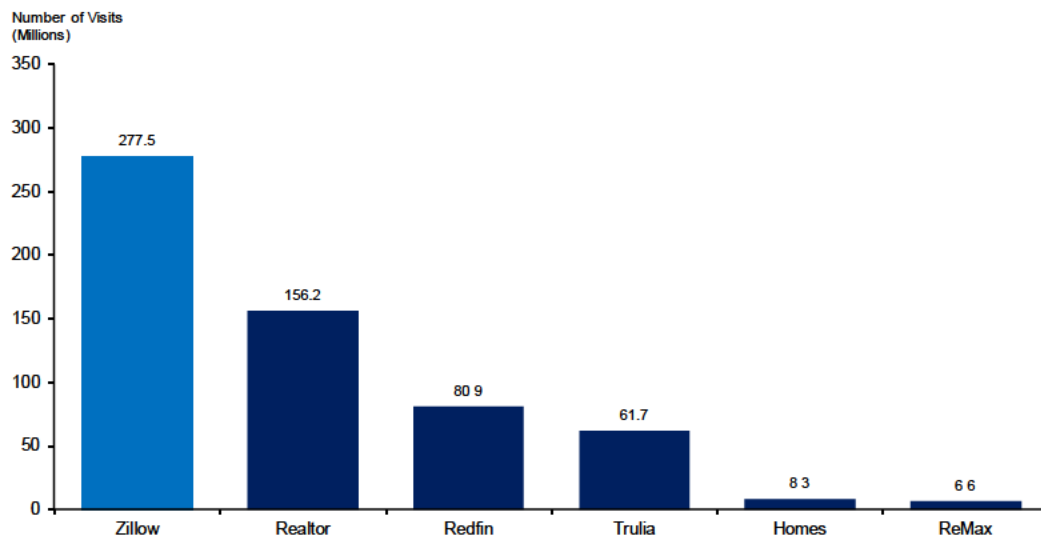
⁴⁶ “About,” Realtor.com, <https://www.realtor.com/about/>.

⁴⁷ “Support for Real Estate Professionals,” Realtor.com, <https://support.realtor.com/s/article/does-realtor-com-display-for-sale-by-owner-listings#:~:text=At%20this%20time%2C%20homeowners%20cannot,to%20display%20on%20the%20internet>.

⁴⁸ See **Exhibit 1**.

⁴⁹ See **Exhibit 1**.

Exhibit 1
Monthly Visits to Zillow and Top Real Estate Websites
 January 2021



Source: <https://www.similarweb.com/website/zillow.com/competitors/>; <https://www.similarweb.com/website/zillow.com/>

Note: Monthly visits data is obtained from SimilarWeb, a data vendor specialized in website analytics. The five websites above are ones which SimilarWeb identifies as Zillow's top five "competitors," based on "SimilarWeb data of monthly visits." SimilarWeb identifies five other "competitors" that it appears to give a lower score on "similarity" to Zillow. These include sites that appear dedicated to rentals, such as Apartments.com, Rent.com, and HotPads.com, as well as movoto.com and coldwellbankerhomes.com

24. In the last two decades, aggregators have helped facilitate an online shift in the home buying and selling process. As NAR has recognized, by 2020, the majority of home buyers (51%) found the home that they purchased via the Internet, the share having grown from just 8% of buyers in 2001.⁵⁰ In 2020, 97% used the Internet at some point in the process compared to 41% in 2001.⁵¹ Aggregators, and the data they display on the Internet, have become a key resource in the home buying and selling process.

25. In that same period, the percentage of buyers who found the home they purchased via a real estate agent declined from 48% in 2001 to 28% in 2020.⁵² Likewise, 43% of buyers in 2020 looked online for properties as the first step of their home buying process, while just 18% first contacted a real estate agent.⁵³ If commissions offered through the MLS reflect concern that buyers' agents may not show properties without a promise of the customary rate, the relevance of

⁵⁰ Exhibit 3-9: Where Buyer Found the Home They Purchased, 2001-2020, NAR 2020 Profile of Home Buyers and Sellers.

⁵¹ Exhibit 3-11: Buyer Use of Internet in Home Search Process, 1995-2000, NAR 2020 Profile of Home Buyers and Sellers.

⁵² Exhibit 3-9: Where Buyer Found the Home They Purchased, 2001-2020, NAR 2020 Profile of Home Buyers and Sellers.

⁵³ Exhibit 3-1: First Step Taken During the Home Buying Process, NAR 2020 Profile of Home Buyers and Sellers.

that concern has been declining while the importance of being seen on the Internet has been growing.

E. REX's Business Model

26. REX, a real estate brokerage firm with operations across the U.S., was founded in 2015 with an alternative and innovative business model compared to traditional real estate brokerages.⁵⁴ Focused on using technology to decrease the cost of home selling and buying, REX takes advantage of innovations in online marketing that allow more precise ad targeting to potential customers.⁵⁵ Using digital marketing, REX advertises directly to consumers who are likely to be interested in one of their listings, thereby allowing potential buyers to identify and view potential homes directly and without engaging a buyer agent.⁵⁶ When a buyer agent is not involved in the transaction, total commissions for the transaction are lower, and are frequently cut in half.

27. REX's use of Artificial Intelligence and targeted digital marketing campaigns also allow sellers to publicize their homes without use of the MLS.⁵⁷ Without using the MLS, REX sellers do not pre-commit to paying a given commission to buyers' agents. Instead, when contacted by a buyer's agent about a potential buyer, REX has the ability to negotiate the buyer agent's commission. Unlike traditional MLS transactions which insulate buyer agent commissions from negotiation and, consequently, from competitive pressures, REX's model provides flexibility in compensating a buyer's agent to reflect the value of that agent relative to other sources of potential buyers – including other buyers' agents – to achieve a sale for REX's client.

28. As a result of REX's approach, total commission on REX brokered transactions are on average lower than commissions on MLS-listed properties.⁵⁸ Section VIII discusses REX savings on commissions in more detail.

29. Offering consumers an innovative and cost-saving alternative to traditional real estate brokerage, REX has demonstrated fast growth since it was founded in 2015. **Exhibit 2** shows

⁵⁴ "About Us," REX, <https://www.rexhomes.com/about>.

⁵⁵ "Why REX to Sell Your Home?" REX, <https://www.rexhomes.com/marketing-rex>.

⁵⁶ "Why REX to Sell Your Home?" REX, <https://www.rexhomes.com/marketing-rex>.

⁵⁷ "Top Frequently Asked Questions," REX, <https://www.rexhomes.com/faq>.

⁵⁸ "Top Frequently Asked Questions," REX, <https://www.rexhomes.com/faq>.

REX's rapid growth in revenue from 2015 through 2020. Having gained traction as a competitor in brokerage markets, REX now services homes across 18 different states and Washington D.C., increasing its geographic range in addition to its listings and its sales.⁵⁹ In 2020, REX made more than \$500 million in home sales, earning annual commissions of over \$11 million. According to REX data, since inception, the company has saved consumers over \$29 million in commissions for homes sold by REX.⁶⁰

VI. Market Definition and Defendants' Market Power

30. As I will explain in this Section, the relevant market in which Defendant NAR's members, as well as Plaintiff REX, operate is the provision of real estate brokerage services. This product market is a well-defined market and has been accepted by numerous Courts. The geographic market of this product is local, and the MLS will generally establish a relevant local market's geographic boundary. Defendant NAR's members possess market power, as reflected in the high percentage of agents who are Realtors® and the high percentage of properties for sale listed on the MLS. The market power of NAR members in local real estate brokerage markets has been confirmed by several Courts, and, as I understand, not seriously disputed by NAR or local MLS members. NAR members' market power is consistent with the relatively high commission fees charged by NAR members, despite technological advancements that would be expected to lower the cost of real estate brokerage services.⁶¹ Defendant Zillow is a participant in the relevant market, but also provides an input with its aggregation service, which affects transactions conducted by many other market participants. Control of this input gives Zillow power to influence a much larger share of the real estate brokerage services market than its individual share as a participant.

⁵⁹ "About Us," REX, <https://www.rexhomes.com/about>.

⁶⁰ REX Internal Data. Total savings are calculated based on the difference between commissions associated with REX transactions, and commissions that would have occurred with a traditional agent, assuming a 5.5% commission rate. See **Exhibit 8** for details on the 5.5% commission rate.

⁶¹ See Barwick, P. J. and M. Wong (2019), "Competition in the Real Estate Brokerage Industry: A Critical Review," *Brookings Economic Studies*, p. 5.

A. Product and Geographic Market

31. The provision of real estate brokerage services to sellers and buyers of residential real property is likely to constitute the relevant product market. In the U.S., this industry was estimated to have generated around \$100 billion annually in residential real estate commissions.⁶² The nature of brokerage services can vary for individual buyers and sellers depending on their needs, but can include, among other activities: pricing and marketing the listing, reviewing contracts, facilitating negotiation between the parties, providing the parties with pertinent information about the community, and assisting with the closing of the transaction.⁶³ REX competes directly with Realtors® (and with any agents unaffiliated with NAR) to provide these services to home sellers and buyers at a lower price than traditional agents.

32. It is theoretically possible that subsets of services could constitute a relevant market. Sellers do not all need the same services as other sellers. Buyers do not all need the same services as other buyers. The particular services for buyers and sellers could also be the basis of a distinction. I have not attempted to test how readily brokers or agents who do not specialize in a particular service or type of customer would discipline a hypothetical price increase in that service or type of customer. However, even if such a test did suggest that such distinctions could support finer gradations of the service as distinct markets, the same competitive conditions would likely apply to each such market. Antitrust analysis routinely aggregates similar markets for practical convenience when the competitive conditions are the same.

33. While smaller markets may be possible, no larger market need be considered. For most home buyers or sellers, no reasonable substitutes are excluded from the defined market. A person interested in buying or selling a home can, of course, choose not to purchase brokerage services and attempt to perform activities typically performed by brokers on their own. However, if a buyer or seller does want to purchase these services, their options are generally limited to traditional licensed real estate agents working for licensed real estate brokers.

34. There are a small portion of buyers or sellers who do decide to purchase or sell a home without the assistance of a professional. However, forgoing the purchase of brokerage services

⁶² “Hidden Real Estate Commissions: Consumer Costs and Improved Transparency,” *Consumer Federation of America*, October 2019, <https://consumerfed.org/wp-content/uploads/2019/10/Real-Estate-Commissioner-Report.pdf>.

⁶³ “Brokerage Services,” *U.S. Department of Justice*, <https://www.justice.gov/atr/brokerage-services>.

usually occurs in very particular circumstances, and is not a reasonable substitute for the professional brokerage services of an agent. Sellers, for example, may decide to market their property, review contracts and set and negotiate a price on their own. Homes that are sold without a seller agent are known as “For Sale by Owner” or “FSBO.” In 2020, only 8% of residential real-estate transactions were FSBO.⁶⁴ The majority of these FSBO transactions were sales to individuals the seller previously knew, presumably reducing the need for marketing or complex negotiations.⁶⁵ On the buyer side, in 2020, around 12% of buyers did not use brokerage services from an agent to purchase their home.⁶⁶ Around one half of those buyers purchased a home directly from a home builder and the other half purchased directly from the previous owner, the majority of whom were already known to the buyer.⁶⁷

35. This product market definition has been accepted by courts. For instance, in *In the Matter of Realcomp II*, the Administrative Judge accepted the market definition of “residential real estate brokerage services,” defined by the parties as a number of services such as pricing, marketing, negotiation, and reviewing and managing paperwork.⁶⁸ The appeals court, which confirmed the decision, noted that “the relevant product market [is] real-estate-brokerage services and ... for most home sellers and buyers, no reasonable substitutes for such services exist because of the significant advantages of using a real-estate broker to sell a home.”⁶⁹ In another example, in the Court’s Opinion on the Motion to Dismiss in *Moehrl vs. NAR*, it accepted a market defined as “the bundle of services provided to homebuyers and sellers by residential real estate brokers....”⁷⁰

⁶⁴ Although there was some small regional variation (e.g. FSBO was somewhat less frequent in the West at 5%), these proportions were generally similar across the major U.S. regions. See Exhibit 6–28, NAR 2020 Profile of Home Buyers and Sellers.

⁶⁵ Exhibit 6–30, NAR 2020 Profile of Home Buyers and Sellers.

⁶⁶ Exhibit 4–2, NAR 2020 Profile of Home Buyers and Sellers.

⁶⁷ Exhibit 4–2, NAR 2020 Profile of Home Buyers and Sellers.

⁶⁸ See Order Denying Respondent’s Motion for Summary Decision, *In the Matter of Realcomp II Ltd.*, Docket No. 9320, May 21, 2007; Expert Report of Stephen H. Murray, March 30, 2007, p. 6–8; Expert Report of Darrell L. Williams, April 3, 2007, pp. 10, 22.

⁶⁹ Opinion, *Realcomp II, Ltd., v. Federal Trade Commission*, United States Court of Appeals for the Sixth Circuit, Case No. 09-4596, April 6, 2011, p. 16.

⁷⁰ The Court also specified brokers “with MLS access.” Brokers operating outside of the MLS may be rare, but REX is an example that they do exist. To even ask whether the restrictions of MLS membership affect competition, it seems necessary to first allow that the market can include such a possibility. Memorandum Opinion and Order, *Christopher Moehrl, et al. v. The National Association of Realtors, et al.*, United States District Court for the Northern District of Illinois Eastern Division, Case No. 19-cv-01610, October 2, 2020, p. 16.

36. I note that the real estate brokerage business has historically been local in nature. Most buyers are seeking a property in a specific geographic area, where physical presence of the agent is helpful, and consider it “very important” to work with an agent who has knowledge of the local area where they are considering a home purchase.⁷¹ Likewise, many sellers prefer to work with a broker who is familiar with local market conditions.⁷² While digital tools have somewhat lessened the importance of working with a local real estate agent, as remote agents can view each other’s listings, aggregators cover properties everywhere, and virtual tours and digital signings reduce some of the need for physical presence, the market will likely remain local as long as agents need to be licensed locally to provide services.⁷³ Accordingly, the boundaries of an MLS will generally establish a relevant local market’s geographic boundary.

B. NAR and Its Member Agents (Realtors®) Have Market Power in The Product Market.

37. NAR member dominance in the product market is reflected in the share of all real estate agents that are Realtors® and the share of all properties for sale that are listed on an MLS. NAR’s “roughly 1.4 million members ...make up the majority of real-estate agents in the country.”⁷⁴ Further, the market power of NAR and its members (Realtors®) results in sellers being forced to list their homes on an MLS operating under NAR policies.⁷⁵ Those policies, established and enforced by NAR’s members, obligate a seller to pre-commit to compensation for a buyer’s agent, and insulate that compensation from negotiation and from competition among buyers’ agents. NAR’s own research reveals that, in 2020, only 2% of sellers

⁷¹ Exhibit 4–18, NAR 2020 Profile of Home Buyers and Sellers.

⁷² Complaint, *U.S. v. National Association of Realtors*, United States District Court for the Northern District of Illinois Eastern Division, Case No. 05C-5140, September 8, 2005, p. 5.

⁷³ “Do Sellers Need a Local Real Estate Agent? Dispelling a Common Myth,” *Inman*, <https://www.inman.com/2017/07/05/do-sellers-need-a-local-real-estate-agent-dispelling-a-common-myth/>.

⁷⁴ “Justice Department Takes Aim at Realtor Rules,” *The Wall Street Journal*, <https://www.wsj.com/articles/justice-department-takes-aim-at-realtor-rules-11605826653>.

⁷⁵ Note that there are some MLS that are not regulated by NAR. “Most MLSs are owned by the REALTOR® association that formed them. They may be owned by multiple associations in a regional MLS. Some MLSs were formed directly by groups of brokers which own the MLS themselves... MLSs are managed in a number of ways. Some REALTOR® association-owned MLSs are managed by the association staff. Others are split off as separate organizations with separate staff from the association. Independent MLSs usually derive their management strategy and operations from the brokers who formed the cooperative.” *See* “Multiple Listing Service: What is an MLS and How Many MLSs Are There?” *RESO*, <https://www.reso.org/mls-faq/>.

affirmatively stated that they did not list their home on an MLS.⁷⁶ Among sellers, 91% recollected listing their home on an MLS and 7% did not know.⁷⁷

38. A number of courts have found that NAR and its members have power in local real estate brokerage services markets, as reflected in the power of local MLSs operating under NAR's policies. For example, in *RealComp II Ltd. v. FTC*, the administrative law judge found and the appeals court confirmed that "substantial evidence supports the Commission's findings that Realcomp [an association operating an MLS in southeastern Michigan] possessed substantial market power."⁷⁸ In *Sitzer v. National Association of Realtors*, the Court similarly found that "[g]iven the sheer market power possessed by the Subject MLS [a collection of MLSs in Missouri] and few available listing alternatives, combined with the fact that each MLS participant must adhere to NAR listing rules or face professional sanctions and/or repercussions, Plaintiffs demonstrate the significant influence exerted by Defendants and their listing policies in the Subject MLS."⁷⁹ While individual communities may differ in the NAR policies incorporated into their MLS, with some communities possibly not being covered by an MLS operating under NAR policies at all, findings across a variety of local markets as well as with NAR itself suggest that NAR, its members collectively, and the MLSs they operate are likely to enjoy substantial market power.

39. The market power of Defendant NAR's members in the product market is reflected in the fact that the U.S. has one of the highest commission rates in the world. A study published in *The Wall Street Journal* found that the average U.S. commission rate in 2015 was nearly double the rate in Canada, and approximately three times larger than the rate in the United Kingdom or Australia.⁸⁰ **Exhibit 3** charts commission rates around the world, and shows that the U.S. rates are among the highest. Furthermore, while commissions have been falling in many countries over the last several decades, particularly in countries with previously high commissions such as China or Russia, researchers have found that commission rates in the U.S. have been remarkably

⁷⁶ Exhibit 7-5, NAR 2020 Profile of Home Buyers and Sellers.

⁷⁷ Exhibit 7-5, NAR 2020 Profile of Home Buyers and Sellers.

⁷⁸ Opinion, *Realcomp II, Ltd., v. Federal Trade Commission*, United States Court of Appeals for the Sixth Circuit, Case No. 09-4596, April 6, 2011, p. 17.

⁷⁹ Opinion, *Joshua Sitzer, et al. v. That National Association of Realtors, et al.*, United States District Court for the Western District of Missouri, Case No. 4:19-cv-00332-SRB, August 19, 2019.

⁸⁰ "Real Estate Agent Commissions Around the World," *The Wall Street Journal*, https://graphics.wsj.com/table/commish_1016.

stable.⁸¹ This is despite the fact that home prices in the U.S. have been rising (and so commission fees, because they are a percentage of price, rise accordingly), and significant technological advancements⁸² that would be expected to lower the cost of transactions. As Barwick et al. (2019) explain:

Across the country, national average commission fees over the past couple of decades have doubled and outpaced inflation in most years. Commission rates have remained uniformly high relative to other countries and industries and appear largely invariant to factors that affect the cost of housing transactions. All of these patterns are puzzling given the industry's significant technological changes in the meantime.⁸³

40. Zillow also participates directly in the product market through its iBuyer program, Zillow Offers.⁸⁴ In certain markets where Zillow Offers operates, Zillow can act as its own buyer's agent, represented by its in-house brokerage, Zillow Homes.⁸⁵ Depending on the market, Zillow Homes' own licensed employees can also act as the selling agents for Zillow-owned homes.⁸⁶ In 2020, Zillow Offers operated in 25 markets and sold 5,337 homes.⁸⁷ There is no indication that Zillow individually has power as a participant in the brokerage services market. However, as a supplier to participants in that market, Zillow has – up to the change – provided an unbiased and valuable service that is important and used by a substantial portion of buyers. Zillow's ability to turn on or off unbiased access to that service, as demonstrated below, gives them notable power indirectly in the market.

41. In summary, Defendant NAR and its members collectively have market power in real estate brokerage service markets across the U.S., as reflected in the high percentage of U.S.

⁸¹ Barwick, P. J. and M. Wong (2019), "Competition in the Real Estate Brokerage Industry: A Critical Review," *Brookings Economic Studies*, p. 7.

⁸² To name a few, Barwick and Wong (2019) point to "initiatives that streamline housing purchase with renovation and furniture upgrades[,] virtual tours that enable housing purchase sight unseen[,] machine learning algorithms that accurately predict buyer preferences[,] digital closing[,] blockchain technology that greatly simplifies title and asset transfer." Listing aggregators such as Defendant Zillow's Zillow.com website also simplify the property search process for the buyer. *See*

Barwick, P. J. and M. Wong (2019), "Competition in the Real Estate Brokerage Industry: A Critical Review," *Brookings Economic Studies*, p. 1.

⁸³ Barwick, P. J. and M. Wong (2019), "Competition in the Real Estate Brokerage Industry: A Critical Review," *Brookings Economic Studies*, p. 1.

⁸⁴ "Put Zillow Offers to Work for You," Zillow, <https://www.zillow.com/z/offers/agents/>.

⁸⁵ "Put Zillow Offers to Work for You," Zillow, <https://www.zillow.com/z/offers/agents/>.

⁸⁶ "Put Zillow Offers to Work for You," Zillow, <https://www.zillow.com/z/offers/agents/>.

⁸⁷ Zillow, SEC Form 10-K for Period Ended December 31, 2020, Filed on February 12, 2021.

transactions that involve NAR members, and the dominance of MLSs in most local markets, a finding confirmed by several Courts. The market power of Defendant NAR's members collectively is reflected in studies showing persistently high commissions charged to US consumers for brokerage services compared to other countries. Defendant Zillow, also a provider of real estate brokerage services, provides an input to this product market in its aggregation service. Control of this input gives Zillow power to influence the market much larger than its individual share as a participant.

VII. Anticompetitive Effects of Defendants' Conduct

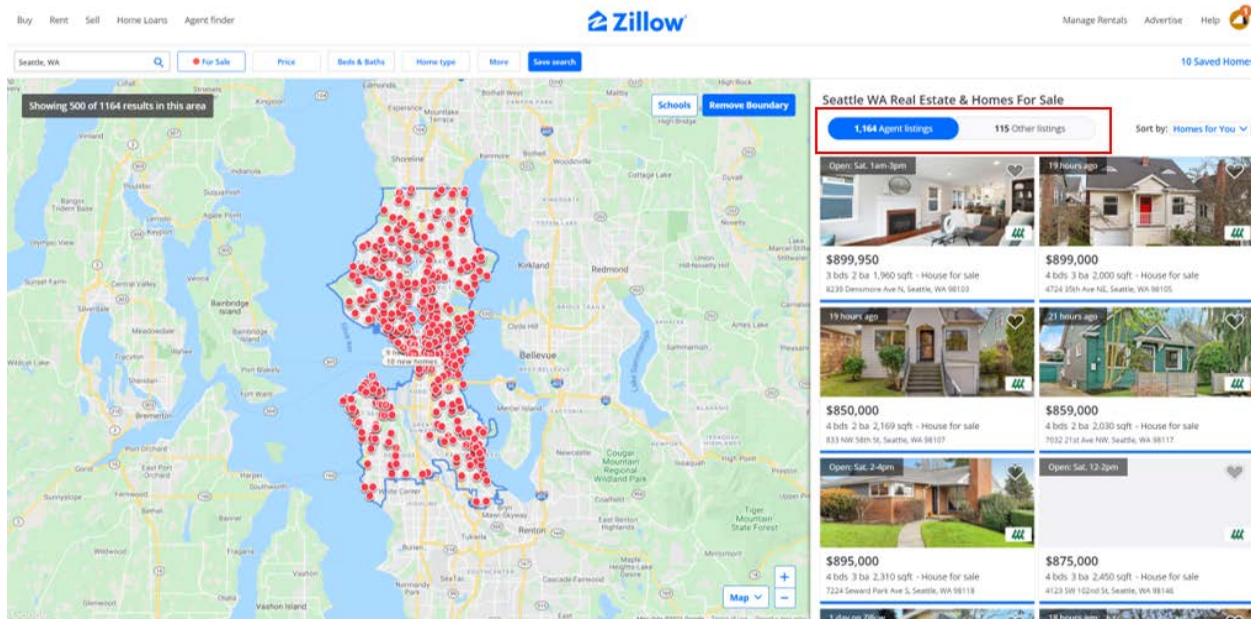
42. In this Section, after detailing Defendants' conduct, I will explain how it has sharply reduced REX's ability to compete with NAR members in the market for real estate brokerage services.

43. In September 2020, Zillow announced that it would join the MLS and receive direct access to the IDX data feed in exchange for Zillow complying with a set of listing display rules agreed to by NAR's members and promulgated by NAR. These rules specifically required Zillow to disfavor any non-MLS listings such as REX's listings and distorted competition between REX and NAR's members in providing residential real estate brokerage services.⁸⁸

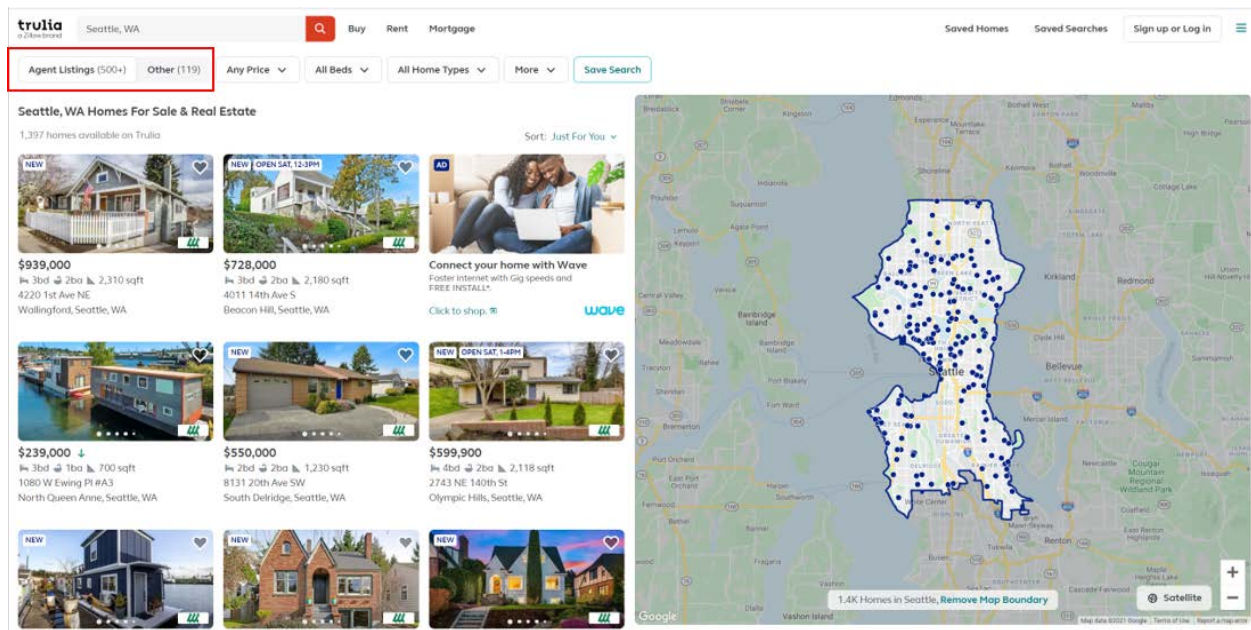
44. I understand that on January 12, 2021, Zillow changed its search interface to disfavor non-MLS listings by creating two separate search tabs for "Agent" and "Other" listings. The "Agent" tab is activated by default when a user signs on to Zillow or Trulia. I also understand that Zillow-owned Trulia also changed its interface around this time. REX listings are not displayed on either site unless a user switches to the "Other" tab, which displays REX listings along with FSBO, foreclosure, and select other types of non-MLS listings.

45. Below is an image with an example of a search performed on Zillow.com after the change. The "Agent" and "Other" tabs are boxed in red for emphasis to ensure their visibility to the Court.

⁸⁸ See NAR 2021 Handbook, Section 18.3.11, p. 86. While some MLSs may not have implemented this particular term of the NAR policies, since Zillow's changes to be compliant applied in every market where REX operates, that option appears to be irrelevant.

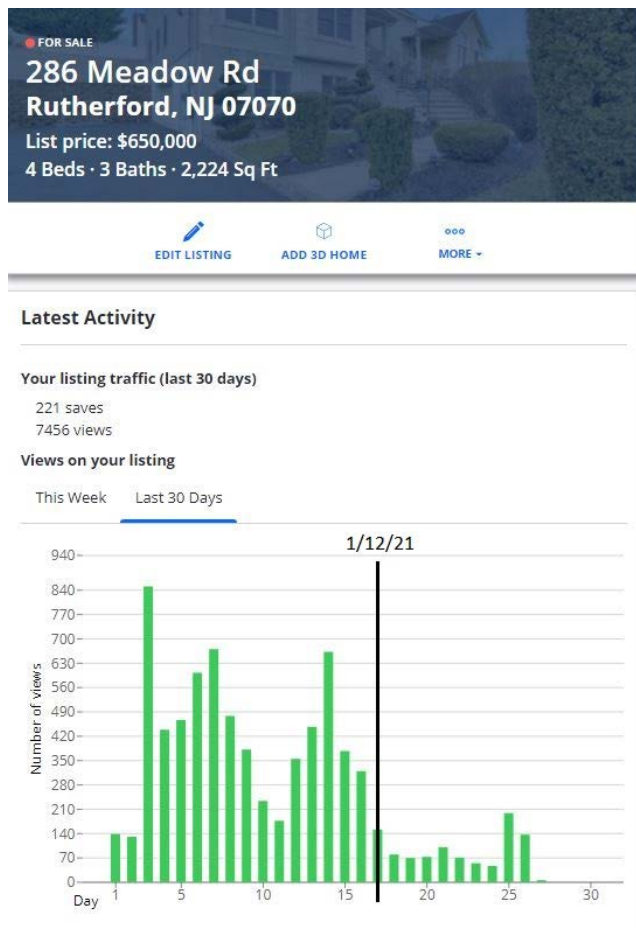


46. Below is an image with an example of a search performed on Trulia.com after the change. The “Agent” and “Other” tabs are boxed in red for emphasis.



47. The switch to not displaying REX listings except to users who performed this extra step immediately and adversely affected REX’s ability to compete. A number of REX home sellers immediately noticed a drop off in views and showing requests on Zillow and sent their REX agents messages asking why their properties were not displayed on Zillow (see Section IX for some examples of such messages). According to Zillow’s dashboard, REX listings experienced

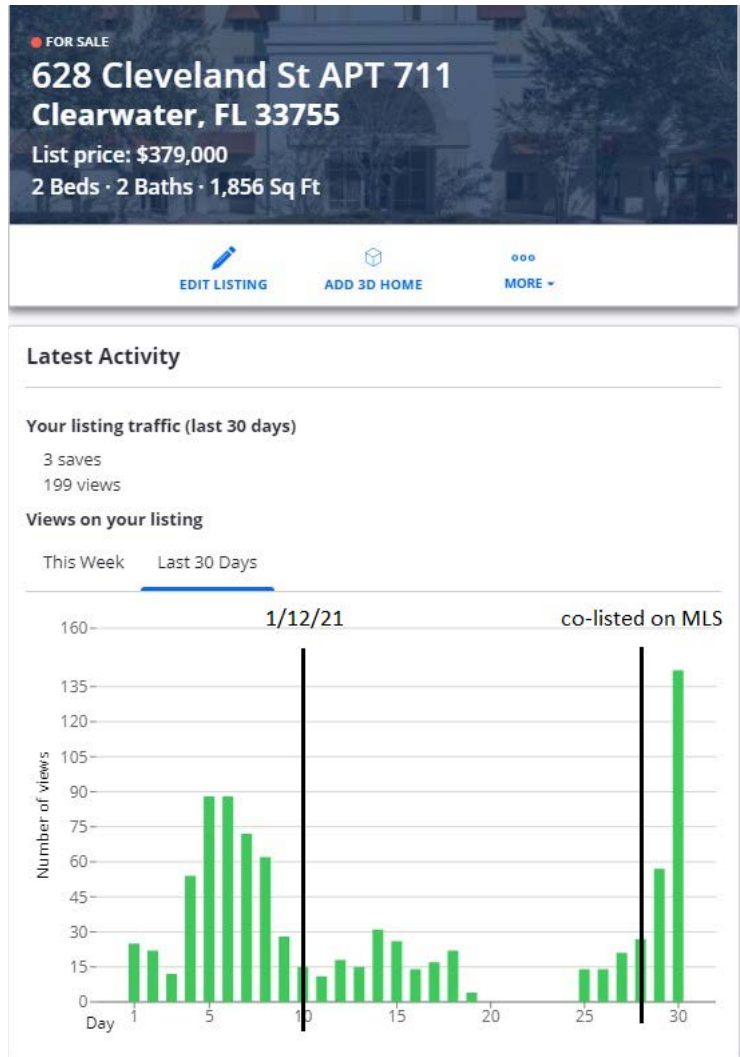
significant declines in views/clicks on Zillow after the change. For example, the image below shows a Zillow dashboard for a REX property in New Jersey that was captured on January 25, 2021. It charts the daily views of the listing on Zillow over the last 30 days. As can be seen in the chart, beginning on January 12, 2021, when the new Zillow display went into effect, views of the property declined substantially.



48. Other properties experienced similar declines. Some REX sellers, after they observed the decline in interest in their respective properties on Zillow, made the decision to commit to paying a non-negotiable buy-side commission and have their property co-listed on MLS. This allowed for their listing to appear by default (i.e., in the “Agent” tab) on the Zillow site. Zillow’s dashboard tool provides evidence that, as soon as properties switched tabs, the number of views increased. For example, similar to the last image, the below image shows a 30-day Zillow views chart for a REX property in Florida that was captured on February 3, 2021. After the change in Zillow’s display (the first black line on the chart), views drop sharply and eventually stop

altogether. On February 1, 2021, the seller co-listed the property on MLS and the listing was moved to the “Agent” tab on Zillow (represented by the second black line on the chart).

Subsequently, there was a rapid increase in the number of listing views.



49. A more systematic analysis indicates that REX indeed experienced a sharp decline in buyer interest in its listings on Zillow after January 12, 2021. One measure of buyer interest in a listing is the number of “showing requests” that it receives. A showing request is a request from a potential buyer to tour a listed property. The number of showings will depend upon buyer interest in any individual listing, and the number of requests for REX listings as a whole also depends on the number of active REX listings at a moment in time. Hence, a measure of showing requests per active listing can be evaluated across time to determine the level of interest in REX listings. Because showing requests do not tend to occur evenly throughout the week (as

in, certain days of the week may tend to have more showing requests than others), I examine this measure on a weekly level. In order to control for the fact that some weeks (e.g., the week of Christmas and New Year's) typically have a different level of real estate activity than other weeks, I compare the showing requests per active listing in weeks around January 12, 2021 to those of the same week of the year prior.

50. **Exhibit 4** shows the results of my analysis for showing requests that REX attributed to Zillow.⁸⁹ The black line in the middle of the chart represents January 12. The bars to the left of the black line represent seven-day periods that are before January 12. For example, the bar labeled "Week (-1)" includes data for one to seven days before January 12, the bar labeled "Week (-2)" includes data for eight to fourteen days before January 12, etc. Conversely, the bars to the right of the black line represent seven-day periods after January 12. Each bar's level is determined based on the difference in Zillow showing requests per live listing in the weeks around January 12, 2021, and the corresponding week one year previously. As can be seen in the chart, in the weeks before January 12, 2021, REX had higher showing requests per live listing than it had in the prior year – on average 63% higher. However, immediately after January 12, 2021, the showing request rate deteriorated. The showing requests per live listings in the four weeks after the change was on average 44% *lower* than in the previous year, i.e., a decline of 108 percentage points relative to the growth observed in the four weeks before. Moreover, by the 4th week after January 12, 2021, showing requests per live listings were approximately 54% lower than the previous year.

51. I performed a similar analysis for showing requests from all sources (not restricted to Zillow), displayed in **Exhibit 5**. As the exhibit shows, the broad result is similar, with higher total showing requests per live listing compared with the prior year in the weeks before January 12, 2021, and lower in the weeks after. The average growth observed in the weeks before January 12, 2021 was approximately 50%, but in the weeks that followed the change in Zillow's display policies, the growth reduced to 2.5%, i.e., a 47.5 percentage point reduction in growth rates relative to the four weeks immediately before the change.

⁸⁹ I understand that, as part of its ordinary course of business, REX will attribute a showing request as coming from Zillow if it receives a request directly through the "Take a Tour" feature on the Zillow website, or when a prospective buyer or buyer agent contacts REX and states that they heard of the property from Zillow.

52. I understand that, in the aftermath of Zillow's change in the display of REX listings, REX agents began to increasingly propose co-listing on the MLS as an option to dissatisfied sellers. Co-listing on MLS may help individual property sellers to quickly circumnavigate the Zillow website redesign (because the listing will be re-categorized under the "Agent" tab on Zillow), but it comes at the cost of likely higher commissions because sellers who list on the MLS must make a non-negotiable offer of compensation to the buyer agent.

53. I understand that one factor REX agents used to assess whether to suggest MLS co-listing is whether the listing had no showing requests for a period of two weeks. To assess whether the Zillow website re-design particularly affected REX properties in this way, I used the same framework, previously described, but focused on the rate of properties with no showings for two weeks. Specifically, I compared the weekly percentage of properties that did not have any showing requests for two weeks in the weeks around January 12, 2021 to that percentage in the prior year. As can be seen in **Exhibit 6**, before the change in Zillow's website, a smaller share of REX listings were falling into this category in 2021 than in 2020. But, in the weeks following January 12, 2021, particularly when the two-week window included only dates after the change, that improvement was reversed. Hence, this measure of REX's need to rely on co-listing in the MLS and whether it can remain independent as a competitor appear to have been adversely affected by Defendants' conduct.

54. Finally, I examined REX's MLS co-listing activity in the period leading up to and after January 12, 2021. I found that, approximately two weeks after the Zillow website re-design, REX average daily co-listing rates spiked after a several month period of declines. The daily co-listing rate is calculated as the proportion of REX homes for sale on a given day that are co-listed on the MLS. While co-listing rates reached an average of approximately 7% from March 2020 (the start of the COVID pandemic)⁹⁰ through the end of the year, they had decreased to 5% on the eve of Zillow's website change. After the website change, according to the most recent data available (March 2, 2021), co-listing rates were approximately 17% and growing. REX's increased need to resort to MLS co-listing likely explains my observation of increased showing requests from non-Zillow sources approximately a month after the Zillow website redesign on January 12, 2021.

⁹⁰ Concerns related to the COVID pandemic may have started affecting real estate activity even earlier than March of 2020.

55. In summary, Defendants' conduct has affected REX's ability to effectively generate buyer interest in its listings. The agreement between NAR and Zillow has converted Zillow and Trulia from sites that impartially served both NAR members and REX into tools for limiting REX's innovative business model and its competitive pressure on NAR members. Reduced showing requests on Zillow or Trulia will likely lead to reduced sales as Zillow is the most important source through which buyers first hear about the REX properties they buy. This is demonstrated in **Exhibit 7**, which shows that the majority of sold REX properties (at least for the roughly 67% where REX can identify the original source) were first found on Zillow or Trulia.

56. Although REX continually refines its technology-based marketing model, it has no way in the short term to replace the valuable input that Zillow had been providing. NAR restricts listings on Realtor.com to MLS listings. Other major aggregators, such as Redfin and ReMax, are already affiliated with and subject to the restrictions of MLS membership. Consequently, REX is now outright foreclosed or disfavored on websites representing over 98% of the views measured in **Exhibit 1**.⁹¹ The aggregator channel to the potential buyers that are generating those website views has effectively been closed to REX.

VIII. Harm to Consumers

57. As I will demonstrate in this Section, REX provides an alternative business model that allows consumers to reduce agent commission costs by breaking with the agreed-upon form of commission offers embodied in the MLS policies of NAR.⁹² REX's data show that REX's model results in lower average combined commissions for residential real estate transactions when compared to properties listed on an MLS, and that, over the years, REX has saved customers millions of dollars in commission fees in addition to other closing costs.⁹³ By limiting the amount of exposure that REX properties have on Zillow, Defendants' actions have stymied

⁹¹ Note that the share of buyers may differ from the share of visits. Some users may view multiple websites. In addition, some websites may incur multiple visits from the same buyer. In order to estimate the portion of potential buyers available for REX through Homes, I assume that such rates of repeat viewing occur similarly across websites. Under the most conservative assumption that buyers overlap across all the other websites listed in **Exhibit 1**, i.e., buyers who visit Zillow also visit Realtor, Redfin, Trulia, Homes and ReMax, I estimate that less than 3% of the buyers visiting one of these online aggregators are available to REX through Homes.

⁹² This directly affects the sellers, as they are the party paying commissions to both sides' agents. Buyers benefit to the extent that a lower overall commission makes a seller more willing and able to accept a lower offer for the same end proceeds on the sale.

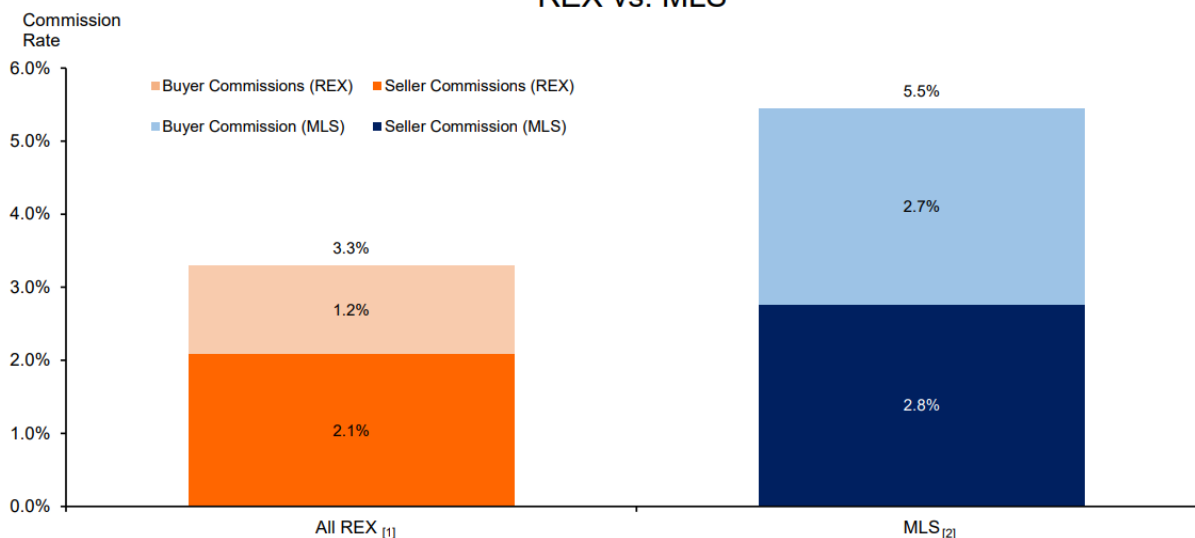
⁹³ See "Get Rewarded for Buying Your New Home," REX, <https://www.rexhomes.com/service/buyerrebate>.

REX's ability to execute its innovative business model, to compete against the MLS model, and to provide consumers an opportunity to save on commissions. As a result, consumers in the relevant market will likely be harmed if the segregation of non-MLS listings on Zillow persists.

58. First, REX data show that average total commissions for REX-brokered homes are lower than the average commissions for homes sold via the traditional brokerage model. **Exhibit 8**, displayed below, compares the average combined commission paid on REX-brokered transactions in 2019–2020. Combined commissions are on average 3.3%, which can be broken down to 2.1% paid to REX and 1.2% paid to buyer agents. This commission is approximately 2.2 percentage points lower than the national average of commission rates. Transactions for properties listed on an MLS are reported to have combined commissions of 5.5%, of which, on average, 2.8% is paid to the seller's agent and 2.7% to the buyer's agent.⁹⁴ To put these numbers in perspective, the average price of a REX-brokered property sold in 2019–2020 was \$477,294. If sold with a traditional MLS affiliated agent, the seller would have paid \$26,251 in combined commission fees. When listing with REX, the seller's paid fees would amount to \$15,751 instead, resulting in a total savings of approximately \$10,500 relative to the traditional brokerage model.

⁹⁴ MLS commission rates are based on a survey conducted in 2020 by Clever, a discount brokerage firm. The survey relied on self-reported data from 563 agents and provided averages and ranges of typical commission rates for both seller's and buyer's agents. These estimates are consistent with other sources publicly available. According to Statista, the national average commission rate was 5.7% in 2019, and according to Barwick et al. (2019), the average buyer commission rate in the Boston area was 2.31% in 2018. See "Average Real Estate Commission Rate," *Clever*, <https://listwithclever.com/average-real-estate-commission-rate/>; "Average Commission Rate for Real Estate Agents in the United States Between 1992 and 2019," Statista; Barwick, P.J. and M. Wong (2019), "Competition in the Real Estate Brokerage Industry: A Critical Review," *Brookings Economic Studies*.

Exhibit 8
Average Commission Rates on Properties Sold
REX vs. MLS



Source: REX Data; Clever website (<https://listwithclever.com/average-real-estate-commission-rate/>); Statista (<https://www.statista.com/statistics/777612/average-commission-rate-realtors-usa/>); Barwick, P. J. and M. Wong (2019), "Competition in the real estate brokerage industry: A critical review." Brookings Economic Studies.

Note:

[1] Average commissions paid on 1,934 REX homes sold between 2019 and 2020. Among these, 59% involved a buyer agent and 41% did not.

[2] MLS commission rates are based on a survey conducted by Clever in 2020. The survey relied on self-reported data from 563 agents and provided averages and ranges of commission rates for both seller's and buyer's agents. These estimates are compatible with other sources. According to the study "Average commission rate for realtors in the U.S., 1992–2019" published by Statista Research Department, the national commission rate was 5.7% in 2019. Barwick et al. (2019) conducted a more localized study focusing on buyer's commission rates, and they found the average buyer commission rate in Boston, MA to be 2.31% in 2018.

59. REX can also provide superior savings relative to discount brokers. Redfin, for example, advertises a commission of 1.5%⁹⁵ — but this commission is only for the seller agent. Because Redfin lists on the MLS, it also pre-commits to offer buyers' agents compensation and the combined commissions paid by a seller using Redfin are somewhere between 4% and 4.5%.⁹⁶ By offering commission rates that are 0.7 to 1.2 percentage points lower, REX allows a seller to save thousands of dollars relative to Redfin, depending on the property price.

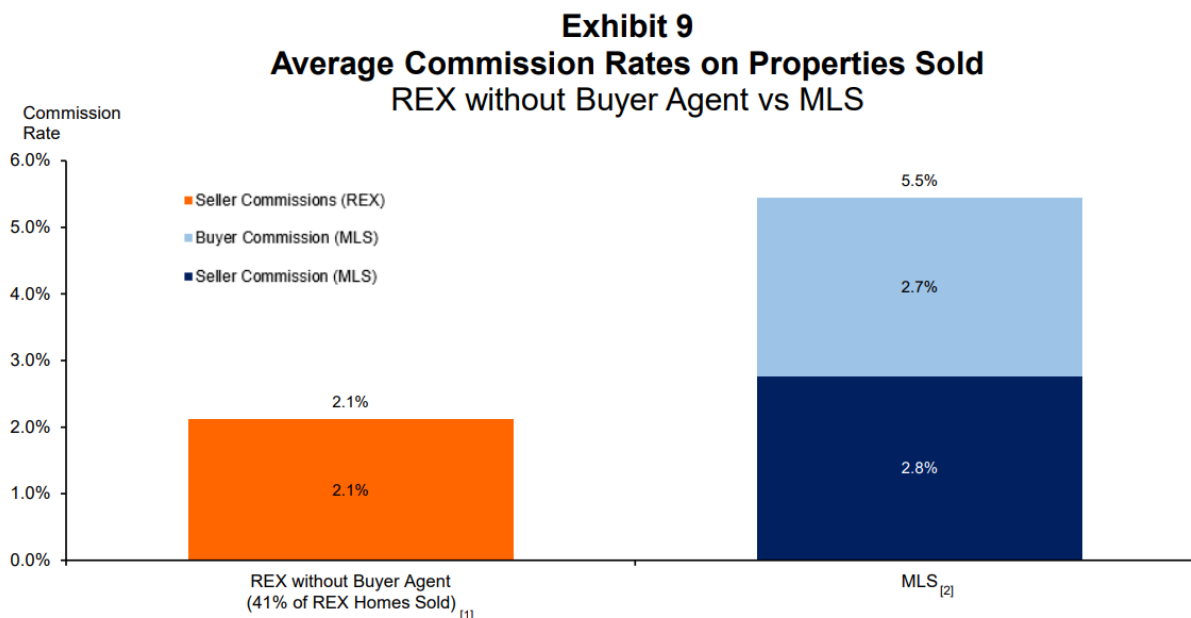
60. Part of the reason that REX can offer lower rates is because its business model allows it to directly reach potential buyers without the help of a buyer agent. In 2019 and 2020, approximately 40% of REX-brokered transactions did not involve a buyer agent. In such situations, REX agents can perform buyer services for REX buyers, including scheduling showings, negotiating offers, and providing assistance with applying for home loans.⁹⁷ **Exhibit**

⁹⁵ Redfin also offers a 1% commission to sellers if a seller buys a home with a Redfin Agent in the year after selling their home, See "Real Estate Agent Commission Fees Explained," Redfin, <https://www.redfin.com/home-selling-guide/commission-fees-explained>.

⁹⁶ "Save Thousands With Redfin," Redfin, <https://www.redfin.com/why-redfin-how-you-save>.

⁹⁷ "What You Get From Rex," REX, <https://www.rexhomes.com/buy-with-rex>.

9, shown below, compares the REX commissions for sales that did not involve a buyer agent. The complete commission for homes in which REX can directly find a buyer is on average 2.1%, a full 3.3 percentage points lower than average combined commission rates for properties listed with an MLS. This represents approximately \$15,750 in savings for the average REX home.



Source: REX Data; Clever website (<https://listwithclever.com/average-real-estate-commission-rate/>); Statista (<https://www.statista.com/statistics/777612/average-commission-rate-realtors-usa/>); Barwick, P. J. and M. Wong (2019), "Competition in the real estate brokerage industry: A critical review." Brookings Economic Studies.

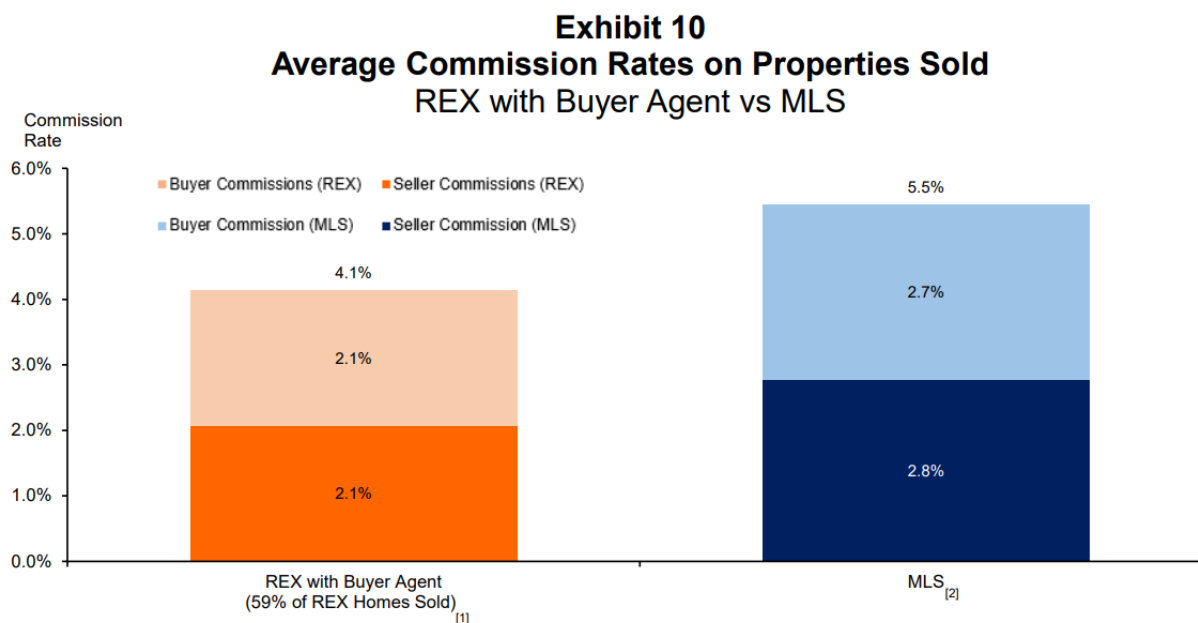
Note:

[1] Average commissions paid on 802 REX homes sold without a buyer agent between 2019 and 2020. These represent approximately 41% of REX homes sold in the period.

[2] MLS commission rates are based on a survey conducted by Clever in 2020. The survey relied on self-reported data from 563 agents and provided averages and ranges of commission rates for both seller's and buyer's agents. These estimates are compatible with other sources. According to the study "Average commission rate for realtors in the U.S., 1992–2019" published by Statista Research Department, the national commission rate was 5.7% in 2019. Barwick et al. (2019) conducted a more localized study focusing on buyer's commission rates, and they found the average buyer commission rate in Boston, MA to be 2.31% in 2018.

61. REX's model also allows for savings even when a separate buyer agent is involved in the ultimate transaction, as shown in **Exhibit 10**. Approximately 60% of REX brokered transactions in 2019–2020 involved a separate buyer agent. Because REX generally does not list on the MLS and pre-commit to a buyer agent commission, it is able to negotiate compensation with buyer agents. These negotiations reflect, on REX's side, the value to the seller of working with that buyer's agent relative to other sources of potential buyers. The negotiations also reflect, on the buyer's side, the value to the buyer of the many services the buyer's agent may be providing to the buyer. When negotiation is allowed, rather than pre-committing to offer a customary amount, a seller can benefit from competition among potential buyers and buyers can determine how much they are willing to compensate their own agent. Through this ability to negotiate,

REX buyer agent commissions were on average 2.1%, lower than the average buyer agent commission of 2.7%. This results in a combined commission rate that is 4.1% at REX for transactions involving a buyer agent, 1.4 percentage points lower than properties sold under the traditional brokerage model.



Source: REX Data; Clever website (<https://listwithclever.com/average-real-estate-commission-rate/>); Statista (<https://www.statista.com/statistics/777612/average-commission-rate-realtors-usa/>); Barwick, P. J. and M. Wong (2019), "Competition in the real estate brokerage industry: A critical review." Brookings Economic Studies.

Note:

[1] Average commissions paid on 1,132 REX homes sold with buyer agent involvement between 2019 and 2020. These represent approximately 59% of REX homes sold in the period.

[2] MLS commission rates are based on a survey conducted by Clever in 2020. The survey relied on self-reported data from 563 agents and provided averages and ranges of commission rates for both seller's and buyer's agents. These estimates are compatible with other sources. According to the study "Average commission rate for realtors in the U.S., 1992–2019" published by Statista Research Department, the national commission rate was 5.7% in 2019. Barwick et al. (2019) conducted a more localized study focusing on buyer's commission rates, and they found the average buyer commission rate in Boston, MA to be 2.31% in 2018.

62. In summary, REX's business model offers consumers the ability to save on commission fees associated with real estate brokerage services. As discussed in Section VII, Defendants' actions have stymied REX's ability to execute its innovative business model and hence are likely to harm consumers.

IX. Irreparable, Irreversible Harm to REX and the Competition It Would Have Exerted

63. Zillow's adherence to the NAR rules will likely cause irreparable harm to REX and its ability to bring competitive pressure on real estate brokerage commissions enjoyed by NAR members. In the real-estate brokerage industry, reputation and track record are crucial factors in

convincing sellers to list with a brokerage. This is likely to be particularly true when the seller is considering a brokerage with an innovative business model such as REX. Because Defendants have impeded REX's ability to sell homes outside of the MLS and outside the policies promulgated by NAR to govern competition among MLS members, REX has struggled to generate new leads for seller listings and to maintain the competitive pressure of its MLS-independent business model. In the wake of Zillow's changes, REX has been forced to make a choice between allowing its reputation to suffer – diminishing its potential to offer competitive discipline in the future – or turning to co-listing with an MLS-affiliated broker in order to generate leads for its listings. As a result, if the disfavoring of REX's listings on Zillow is allowed to continue, REX will lose its opportunity to establish a reputation as an innovative option for sellers and the competitive discipline REX has been bringing to real estate brokerage service will not develop.

64. The fact that track record and reputation are crucial to generating leads for sellers is well documented in NAR research. For instance, the top two methods used by sellers to find a real estate agent are a referral by a friend, neighbor, or relative, or the agent was known to the seller previously from a prior transaction. Taken together, these two methods account for the way that over two-thirds of sellers identify agents to help them sell their property.⁹⁸

65. As an innovator in real estate brokerage, REX has to convince potential customers to trust the company and to trust their innovative business model. The particular importance of a successful track record in meeting these challenges for REX is reflected in the company's marketing materials, which emphasize past seller stories. For example, on the REX website, the company highlights "Words from our users" and "what [] customers have to say about their REX experience," including a video of a past seller describing her experience with the firm.⁹⁹

66. REX's ability to find new sellers has been harmed by Defendants' conduct because current sellers are negatively affected by the change to Zillow's website and hence are not likely to recommend REX to future potential sellers. A number of REX sellers noticed the change to the Zillow website and expressed concern to REX about the visibility of their property listing.

⁹⁸ Exhibit 7–1, Method Used To Find Real Estate Agent, by First-Time or Repeat Seller, NAR 2020 Profile of Home Buyers and Sellers.

⁹⁹ See "REX Reviews & Testimonials," REX, <https://www.rexhomes.com/testimonials>; "REX," REX, <https://www.rexhomes.com/>.

Some decided to leave REX after the change, and others decided to list their property on MLS and commit to paying a buyer agent commission. Several examples of REX's recent communications with its clients include:

- One seller in Florida was dissatisfied with the number of views and was forced to list on the MLS. The seller wrote the following to their REX relationship manager: "Wow!!! NO SHOWINGS THIS PAST WEEKEND!! No showings all last week or the week before. Except the 2 the weekend before. As far as I'm[]concerned it's FLAT. ...We would like to get this on MLS ASAP. The REX marketing is not working. When do you want to meet?"¹⁰⁰ The seller's REX relationship manager reported this internally to the REX management group and wrote: "My seller [in Madeira Beach] was unhappy with the lack of showings for the past 2 weeks, I forwarded her email to you on Monday. I have added her listing to the MLS last night using homecoin and offered 2% commission. So far today I have had 4 agent inquiries and 2 showings booked. I do not think buyers were seeing our home on Zillow as a result of being on the other tab based on the recent activity."¹⁰¹
- A seller in California decided to not list with REX due to Zillow, according to their REX relationship manager.¹⁰²
- A seller in California canceled their contract with REX and noted "We are disappointed that Zillow changed their website as you noted; this wasn't something we prepared for and I believe it's a detriment to us as the sellers because our property shows up under a hidden tab. Even I couldn't see that tab unless I dug in deeper to find my property so I can only imagine what potential buyers are seeing."¹⁰³
- A seller in Florida decided to list on the MLS after seeing little activity on their home in the month in which their property was listed on REX.¹⁰⁴
- A seller in Florida was concerned about not being visible on Zillow. After considerable communication back and forth with REX to understand how to find her property on Zillow, a REX agent suggested that she could co-list with MLS but that "This will require a commission of 2% for MLS buyers, but we can cover the setup listing fee (\$95)."¹⁰⁵

67. In addition to those customers who outright canceled their contracts with REX after the change to the Zillow display, some dissatisfied customers have been co-listed with the MLS and have had to pre-commit to a non-negotiable buyer agent commission.¹⁰⁶ As previously discussed,

¹⁰⁰ Message from A.S. to P.V.H, dated February, 22, 2021.

¹⁰¹ Email from P.V.H. to M.T., "REX showings – Zillow," dated February 24, 2021.

¹⁰² Messages from S.L. to M.T., dated February 26, 2021 and March 2, 2021.

¹⁰³ Email from J.M., "Follow Up - 21901 Burbank #199 (Homecoin, Zillow, Expiration)," dated February 19, 2021.

¹⁰⁴ See Email from S.A., "Correspondence Concerned Sellers / Zillow," dated February 24, 2021.

¹⁰⁵ See Emails between M.D. and R.R., "Your property is now for sale with REX," dated January 25, 2021.

¹⁰⁶ See "Zillow Placement Complaints," REX spreadsheet.

co-listing a property on MLS may help individual property sellers circumnavigate the Zillow website redesign in the short term. However, it requires REX and its clients to forego the advantages of its innovative approach and cannot prevent the likely long-term irreparable harm to REX and to competition from Defendants' conduct. Co-listing requires REX to abide by the same terms for MLS participation that already limit competition among NAR's members and any real estate brokerage that relies on NAR's MLSs. This prevents sellers from achieving substantial savings on their commissions, the primary reason that 87% of sellers want to sign up with REX, as can be seen in **Exhibit 11**. In short, co-listing on the MLS effectively prevents REX from executing its innovative business model that allows for negotiation with buyer agents and saves consumers commission fees.

68. In summary, Defendants' conduct will likely have a lasting and irreversible impact on REX and other businesses operating a similar innovative business model if the agreement is allowed to stay in effect. Without new sellers and listings, REX's innovative business model will fail.

Executed on the 9th of March, 2021,



Dr. W. Robert Majure

Appendix A

Dr. W. Robert Majure CV

Cornerstone Research
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202.912.8978 • fax 202.912.8999
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ACADEMIC BACKGROUND

1990 – 1994	Massachusetts Institute of Technology <i>Ph.D., Economics</i> Specialization: Industrial Organization, Microeconomics, Econometrics Thesis: Disequilibrium Game Theory	Cambridge, MA
1986 – 1990	University of Virginia <i>B.A., Economics and Mathematics</i>	Charlottesville, VA

PROFESSIONAL EXPERIENCE

2019 – Present	Cornerstone Research, Inc. <i>Vice President</i> Provide financial and economic analysis for commercial litigation matters. Support experts in preparing for deposition and trial testimony.	Washington, DC
2010 – 2018	Antitrust Division – U.S. Department of Justice <i>Director of Economics</i> Senior career executive supervising the Antitrust Division's Economic Analysis Group. Helped formulate economic evidence and testimony for cases in industries such as software (<i>U.S. v. H&R Block, Inc., et al.</i>), telecommunications (<i>U.S. and Plaintiff States v. AT&T Inc., et al.</i>), video (<i>U.S. v. AT&T Inc., DirecTV Group Holdings, LLC, and Time Warner Inc.</i>), publishing (<i>U.S. v. Apple, Inc., et al.</i>), airlines (<i>U.S., et al. v. US Airways Group, Inc. and AMR Corp.</i>), oilfield services (<i>U.S. v. Halliburton Co. and Baker Hughes Inc.</i>), and health insurance (<i>U.S. and Plaintiff States v. Aetna Inc., and Humana Inc. and U.S. and Plaintiff States v. Anthem, Inc. and Cigna Corp.</i>).	Washington, DC
2003 – 2010	Antitrust Division – U.S. Department of Justice <i>Chief of Competition Policy Section</i> Managed a section of about 18 economists and other staff. Supervised economic analysis of antitrust investigations in various industries including computer software (<i>U.S. v. Oracle Corp.</i>), real estate (<i>U.S. v. Kentucky Real Estate Commission</i>), and telecommunications (<i>U.S. v. Cingular Wireless et al.</i>). Testified in <i>U.S. v. SBC Communications Inc. and AT&T Corp.</i> and <i>U.S. v. Verizon Communications Inc. and MCI, Inc.</i> Consulted on appellate arguments of the United States in Circuit Court (including <i>FCC v. Prometheus Radio Project</i>).	Washington, DC
1997 – 2003	Antitrust Division – U.S. Department of Justice	Washington, DC

Dr. W. Robert Majure CV*Assistant Chief of Economic Regulatory Section*

Assisted with the management of a section of about 18 economists and other staff. Supervised economic analysis of antitrust investigations in various industries including telecommunications (*U.S. v WorldCom and Sprint*), computer software (*U.S. v Mathworks and Wind River*), publishing, radio and television advertising (*U.S. v Univision and Hispanic Broadcasting Corp*), electricity, and airlines. Consulted on appellate arguments of the United States in Circuit Court and the U.S. Supreme Court (including *Iowa Utilities Board v FCC and U.S.*).

1994 – 1997 **Antitrust Division – U.S. Department of Justice** Washington, DC
Economist
 Performed economic analysis in antitrust investigations. Applied developments in the fields of industrial organization, microeconomics, and econometrics to practical questions raised in antitrust analysis. Examined mergers or practices in telecommunications (including *U.S. v Sprint and Joint Venture Co.*), computer software, and banking. Testified in the merger of Union Pacific Railroad and Southern Pacific Railroad (before the Surface Transportation Board).

TESTIMONY

U.S. v SBC Communications Inc. and AT&T Corp. and *U.S. v. Verizon Communications Inc. and MCI, Inc.* – Filed declarations in Tunney Act proceeding to explain the economic analysis of the United States for the proposed mergers and of the proposed consent decrees.

ICC Finance Docket No. 32760 – Submitted testimony on behalf of the U.S. Dept. of Justice analyzing prospective merger of Union Pacific Railroad and Southern Pacific Railroad.

PUBLICATIONS

“Comparing Vertical Merger Guidelines Across Jurisdictions” with Peter Davis and Kostis Hatzitaskos in *Law360* February 2020.

“Revisiting Guidance on MFN Terms” with Andrew Sfekas in *Antitrust Chronicle* September 2019.

“Economics at the Antitrust Division 2016-2017: Healthcare, Nuclear Waste, and Agriculture,” with A. Gerstle, H. Knudsen, D. Williamson, and J. Lee, *Review of Industrial Organization*, Vol 51, Issue 4, 2017, pp. 515-528

“The Year in Review: economics at the Antitrust Division: 2011,” with F. Scott Morton, *Review of Industrial Organization*, Vol. 41, Issue 4, 2012, pp. 321-331

“The Antitrust Division: Economic Issues Presented in 2010-2011,” *Review of Industrial Organization*, Vol 39, Issue 4, 2011, pp. 327-334

“The Year in Review: Economics at the Antitrust Division, 2004–2005,” with E. Emch and K. Heyer, *Review of Industrial Organization*, Vol 27, Issue 3, 2005, pp. 197-221

“Ensuring Fair and Efficient Access to the Telecommunications ‘Bottleneck’” with D. Rubinfeld, in C.D. Ehlermann and L. Gosling (eds.), Third Competition Law Annual 1998: Regulating Telecommunications (Hart Publishing: Oxford)

“An Empirical Analysis of Bank Branching: Portugal 1989-1991” with L. Cabral, in The Empirical Analysis of Industrial Organization Conference Report of the Centre for Economic Policy Research

Dr. W. Robert Majure CV

WHITE PAPERS

“Comments on the January 2020 Draft Vertical Merger Guidelines,” with Kostis Hatzitaskos, Aviv Nevo, and Ana McDowall, February 2020, available at <https://media.justice.gov/vod/atr/comments-draft-vmg/dvmg-0012.pdf>.

“Comparison with the EU Non-Horizontal and the UK Merger Assessment Guidelines,” with Peter Davis and Kostis Hatzitaskos, February 2020, available at <https://media.justice.gov/vod/atr/comments-draft-vmg/dvmg-0011.pdf>.

“Review: Selected Research of Andrew Sweeting, New Bureau of Economics Director” with Andrew Sfekas, Ross Askenazi, and Laurien Gilbert, January 2020, available at <https://www.cornerstone.com/Publications/Articles/Selected-Research-of-Andrew-Sweeting.pdf>

HONORS AND AWARDS

President’s Award for Meritorious Executive	2017
Assistant Attorney General’s Award for Excellence	2015
Attorney General’s John Marshall Award for Legal Advice (Nominated)	2004
Assistant Attorney General’s Award for Excellence	2001
Distinguished Service Award	1997
National Science Foundation Fellowship	1990 – 1993
Phi Beta Kappa	1989

CONFERENCE PARTICIPATION

8 th Annual Bill Kovacic Antitrust Salon	2020
Discussed vertical merger guidelines and enforcement issues in a panel hosted by George Washington University School of Law and <i>Concurrences Review</i> .	
“New Debates and Tensions in Antitrust: The 2020 Vertical Merger Guidelines”	2020
Discussed newly issued vertical merger guidelines with attorneys and economists in government and private practice.	
ABA panel “Sequences & Sparks: Life Sciences Innovation Mergers.” (podcast)	2020
Discussed issues of innovation competition, potential competition, and merger enforcement.	
DOJ Workshop on Proposed Vertical Merger Guidelines	2020
Discussed issues of vertical merger analysis and suggested modifications to draft guidelines.	
ICN Chief/Senior Economist Workshop	2016
Discussed tools and techniques of current interest with senior economists representing competition authorities around the world.	
FCC Roundtable on Media Ownership Policies	2001
Discussed economic issues related to prospective changes in the FCC’s rules governing media ownership.	

Dr. W. Robert Majure CV

PERSONAL

U.S. Citizen. Married with two daughters and one son.

Appendix B

Documents Considered by Dr. W. Robert Majure

Academic Articles

- Barwick, P. J. and M. Wong (2019), “Competition in the Real Estate Brokerage Industry: A Critical Review,” *Brookings Economic Studies at Brookings*.

Legal Documents

- *U.S. v. Consolidated Multiple Listing Service, Inc.*, United States District Court for District of South Carolina Columbia Division, Case No. 3:08-cv-01786-SB, May 2, 2008.
- *U.S. v. National Association of Realtors*, United States District Court for the Northern District of Illinois Eastern Division, Case No. 05C-5140, September 8, 2005.
- Declaration of Dr. W. Robert Majure, *U.S. v. SBC Communications Inc., et al.*, United States District Court for the District of Columbia, Case No. 1:05-cv-02102, August 9, 2006.
- Declaration of Dr. W. Robert Majure, *U.S. v. Verizon Communications Inc., et al.*, United States District Court for the District of Columbia, Case No. 1:05-cv-02103, August 9, 2006.
- Memorandum Opinion and Order, *Christopher Moehrl, et al. v. The National Association of Realtors, et al.*, United States District Court for the Northern District of Illinois Eastern Division, Case No. 19-cv-01610, October 2, 2020.
- Opinion, *Joshua Sitzler, et al. v. That National Association of Realtors, et al.*, United States District Court for the Western District of Missouri, Case No. 4:19-cv-00332-SRB, August 19, 2019.
- Opinion, *Realcomp II, Ltd., v. Federal Trade Commission*, United States Court of Appeals for the Sixth Circuit, Case No. 09-4596, April 6, 2011.
- Order Denying Respondent’s Motion for Summary Decision, *In the Matter of Realcomp II Ltd.*, United States of America Federal Trade Commission Office of Administrative Law Judges, Docket No. 9320, May 21, 2007.
- Expert Report of Stephen H. Murray, March 30, 2007 submitted *In the Matter of Realcomp II Ltd.*
- Expert Report of Darrell L. Williams, April 3, 2007 submitted *In the Matter of Realcomp II Ltd.*

Financial Statements

- Zillow, SEC Form 10-K for Period Ended December 31, 2020, Filed on February 12, 2021.

Public Press

- “2020 Profile of Home Buyers and Sellers,” *National Association of Realtors*, 2020, https://www.gaar.com/images/uploads/2020_NAR_Consumer_Profile.pdf.
- “Handbook on Multiple Listing Policy,” *National Association of Realtors*, 2021, https://cdn.nar.realtor/sites/default/files/documents/2021_NAR_HMLP_210112.pdf.
- “Justice Department Takes Aim at Realtor Rules,” *The Wall Street Journal*, November 19, 2020, <https://www.wsj.com/articles/justice-department-takes-aim-at-realtor-rules-11605826653>.
- “Real Estate Agent Commissions Around the World,” *The Wall Street Journal*, https://graphics.wsj.com/table/commish_1016.

REX Documents and Data

- Email from J.M., “Follow Up - 21901 Burbank #199 (Homecoin, Zillow, Expiration),” dated February 19, 2021.
- Emails between M.D. and R.R., “Fwd: Your property is now for sale with REX,” dated January 17, 2021 to February 21, 2021.
- Message from A.S. to P.V.H., dated February 22, 2021.
- Email from P.V.H. to M.T., “REX showings – Zillow,” dated February 24, 2021.
- Email from S.A., “Correspondence Concerned Sellers / Zillow,” dated February 24, 2021.
- Messages from S.L. to M.T., dated February 26, 2021 and March 2, 2021.
- “Zillow Placement Complaints,” REX Spreadsheet.
- REX Internal Data.

Websites

- “9 Questions Everyone's Asking about Zillow's IDX Shift,” *Inman.com*, January 29, 2021, <https://www.inman.com/2021/01/29/9-questions-everyones-asking-about-zillows-idx-shift/>.
- “About Us,” *REX*, <https://www.rexhomes.com/about>.

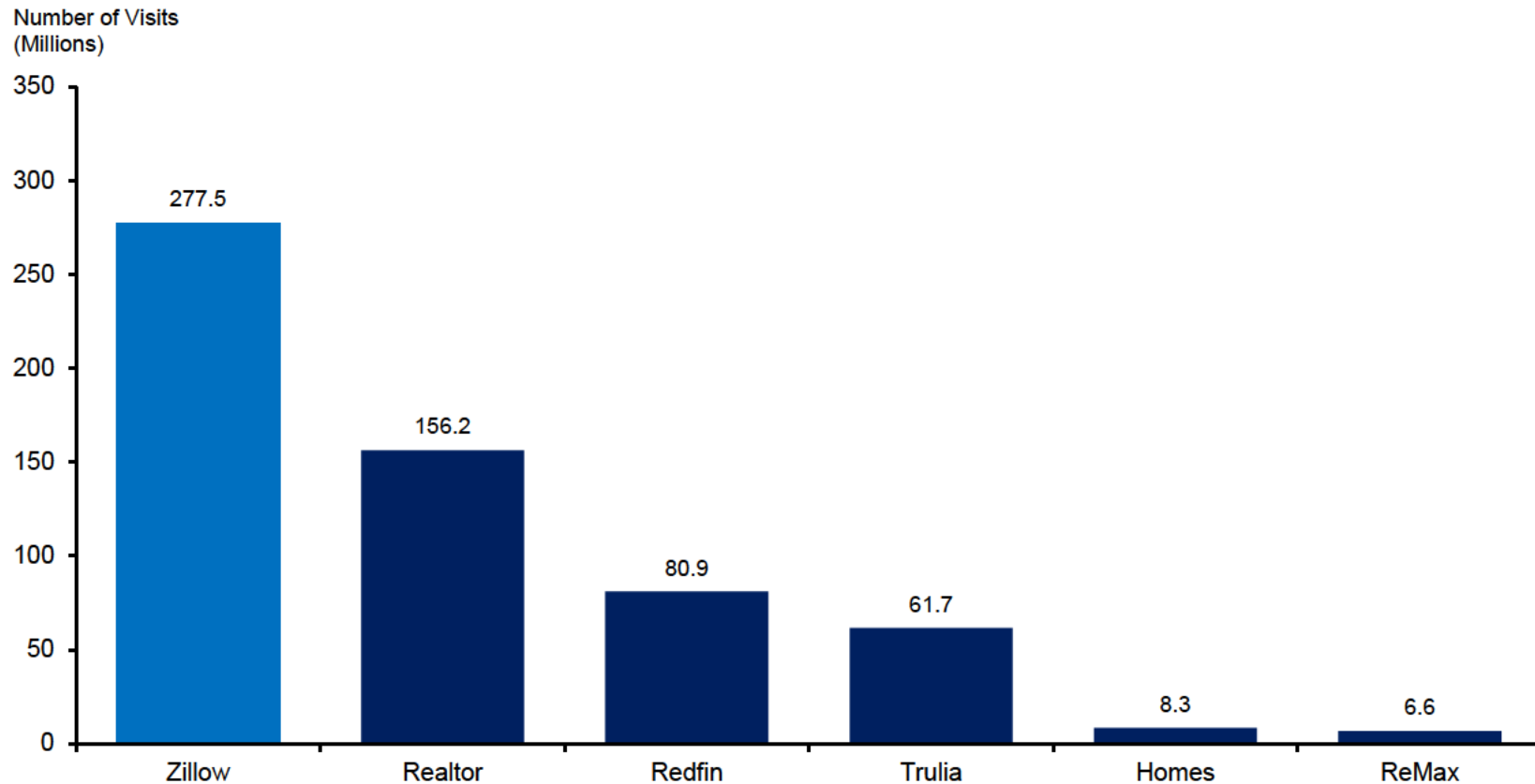
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- “Average Commission Rate for Real Estate Agents in the United States Between 1992 and 2019,” *Statista*, <https://www.statista.com/statistics/777612/averagecommission-rate-realtors-usa/>.
- “Average Real Estate Commission Rate,” *Clever*, <https://listwithclever.com/average-real-estate-commission-rate/>.
- “Brokerage Services,” *U.S. Department of Justice*, <https://www.justice.gov/atr/brokerage-services>.
- “Competition in the Real Estate Brokerage Industry,” *U.S. Department of Justice Report*, April 2007, <https://www.justice.gov/atr/competition-real-estate-brokerage-industry#II>.
- “Creating a Better Real Estate Experience,” *Zillow*, <https://www.zillow.com/agent-resources/blog/creating-a-better-real-estate-experience/>.
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Exhibit 1

Monthly Visits to Zillow and Top Real Estate Websites January 2021



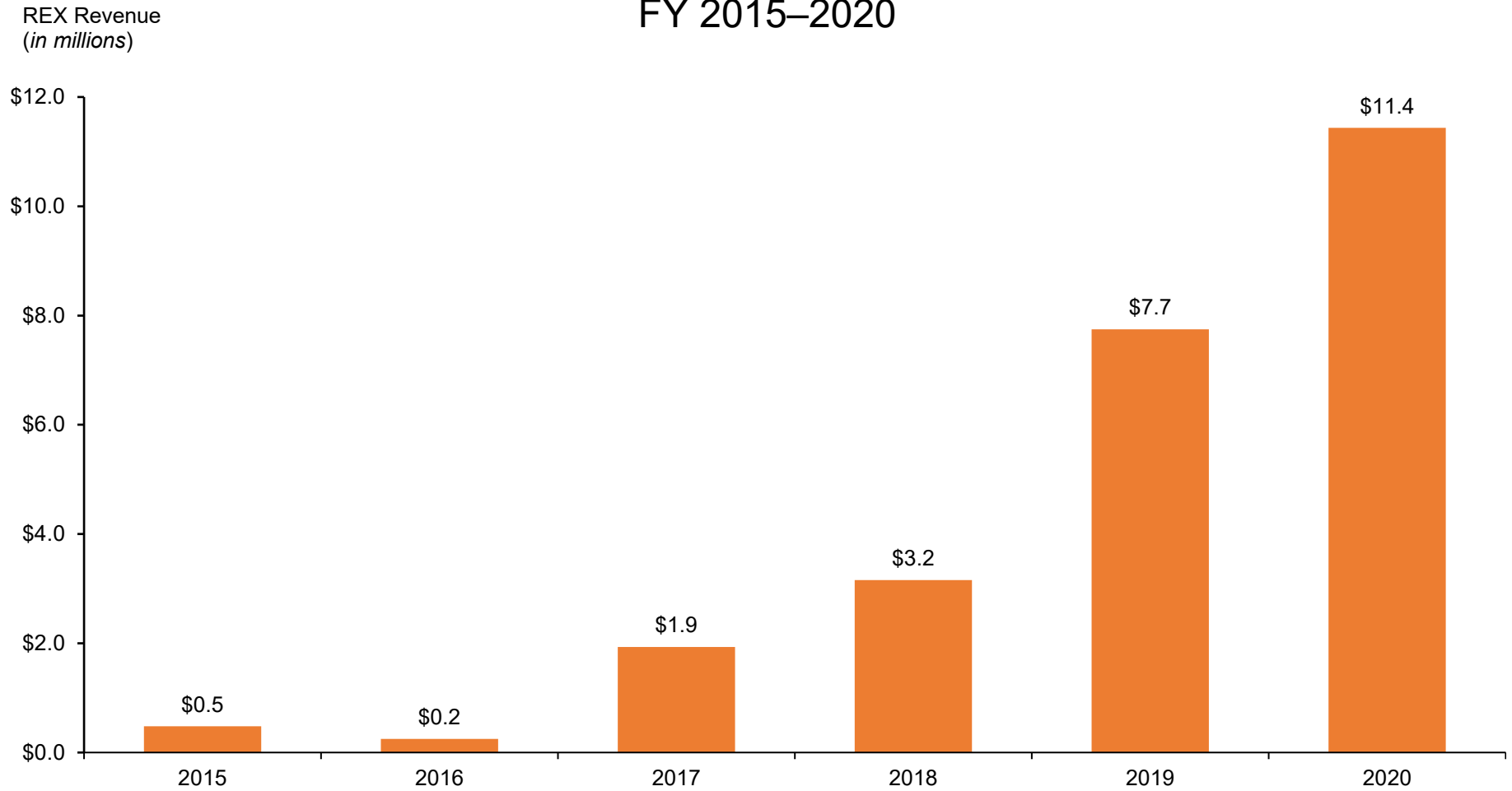
Source: <https://www.similarweb.com/website/zillow.com/competitors/>; <https://www.similarweb.com/website/zillow.com/>

Note: Monthly visits data is obtained from SimilarWeb, a data vendor specialized in website analytics. The five websites above are ones which SimilarWeb identifies as Zillow's top five "competitors," based on "SimilarWeb data of monthly visits." SimilarWeb identifies five other "competitors" that it appears to give a lower score on "similarity" to Zillow. These include sites that appear dedicated to rentals, such as Apartments.com, Rent.com, and HotPads.com, as well as movoto.com and coldwellbankerhomes.com

Exhibit 2

REX Home Sales Revenue by Fiscal Year

FY 2015–2020

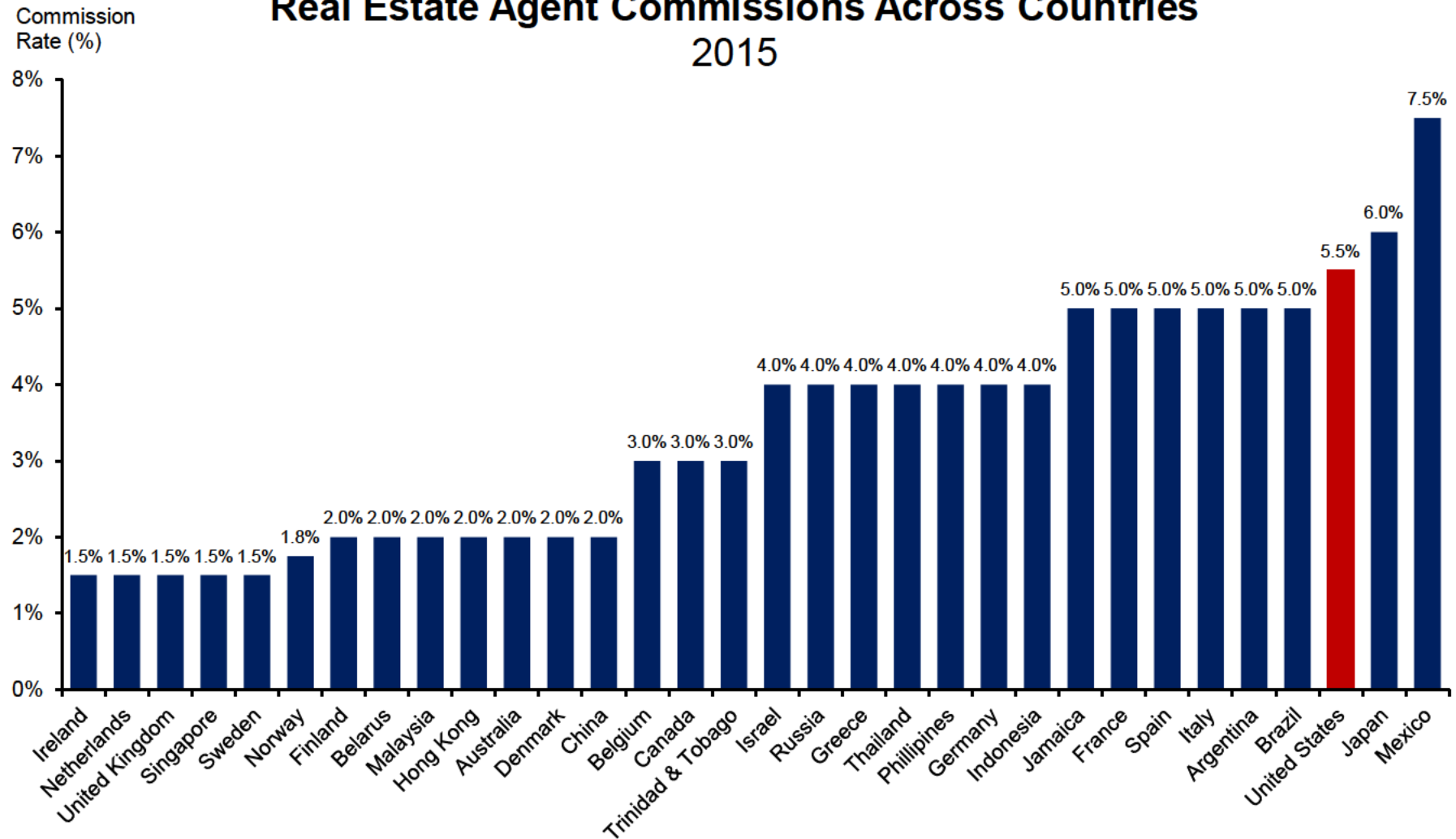


Source: REX Data

Exhibit 3

Real Estate Agent Commissions Across Countries

2015

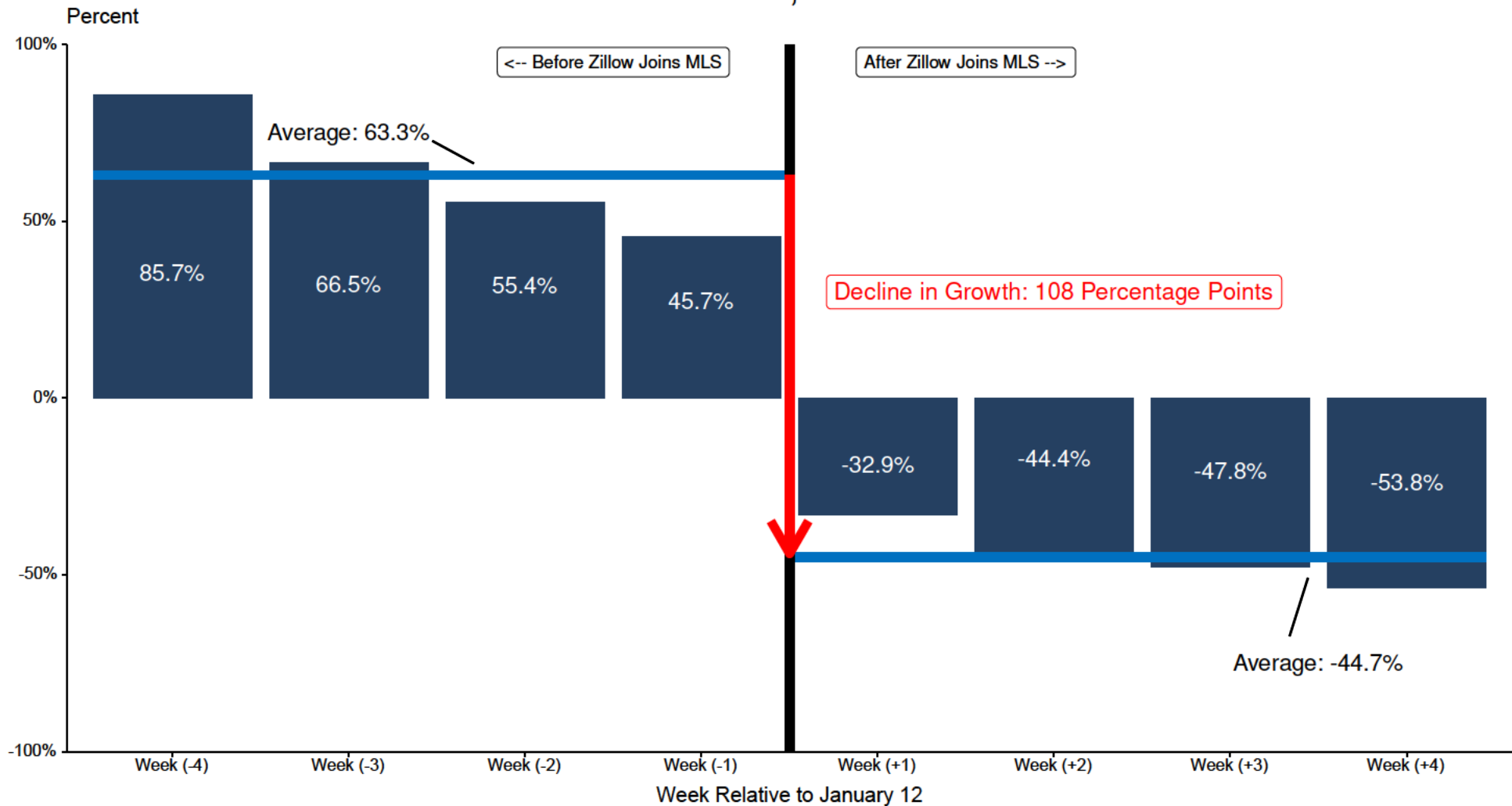


Source: Wall Street Journal (https://graphics.wsj.com/table/commish_1016)

Notes: Chart displays the average combined commission rates paid to both buyer and seller real estate agents in 32 countries.

Exhibit 4

Growth in REX Showings per Listing from Prior Year Zillow Leads, 2020–2021

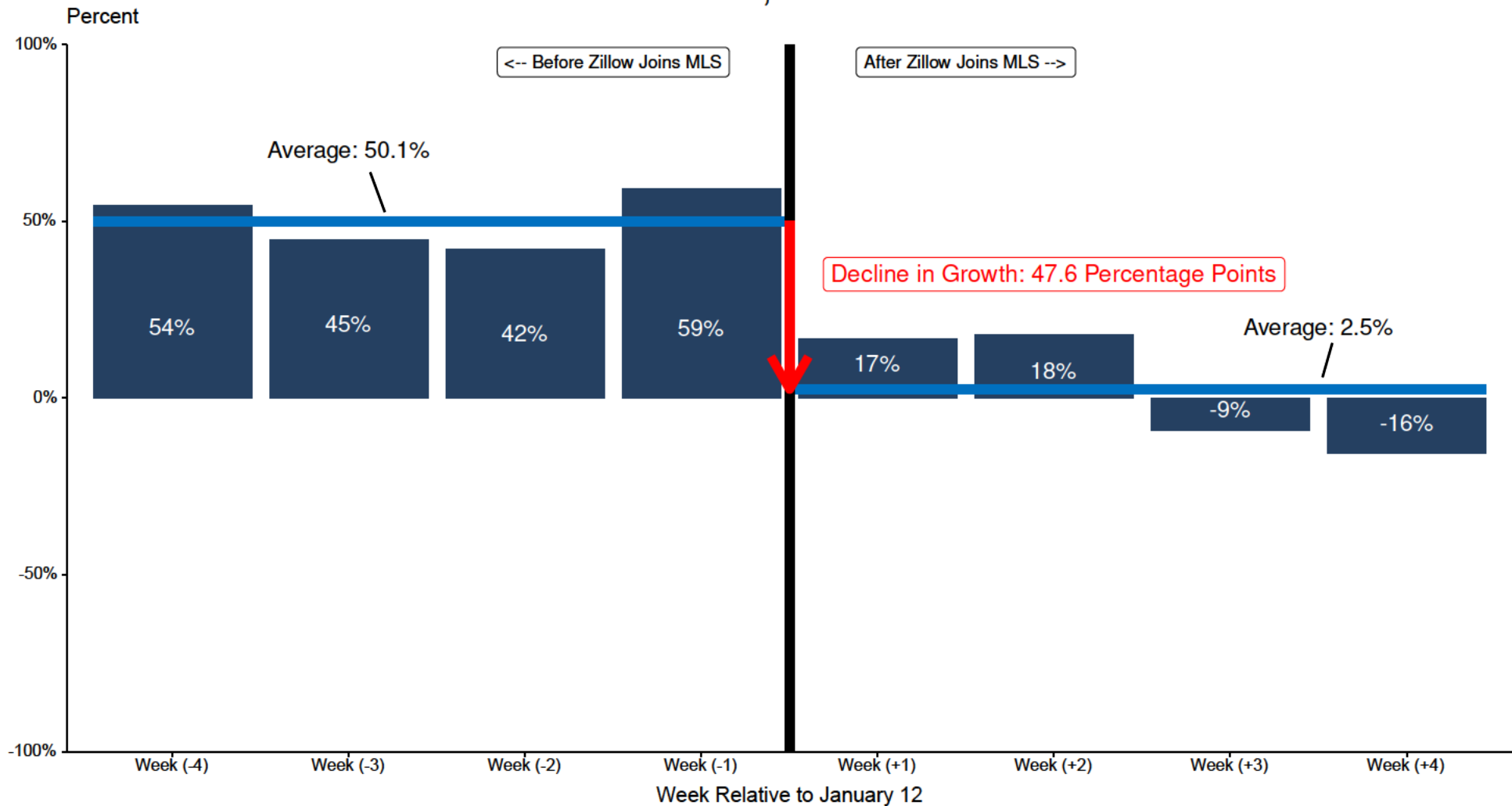


Source: REX data

Note: Each bar displays the growth in weekly showing requests to REX properties per listing relative to the same week in 2020. Weeks are defined as seven consecutive days relative to 1/12, when Zillow joins the MLS. For example, Week (-1) is the seven-day period immediately before 1/12, while Week (+1) is the seven-day period immediately after 1/12. A t-test comparing the difference in means before and after Zillow joins the MLS indicates that the drop in growth rates is significant at the 0.01 level and has p-value 0.003.

Exhibit 5

Growth in REX Showings per Listing from Prior Year All Leads, 2020–2021

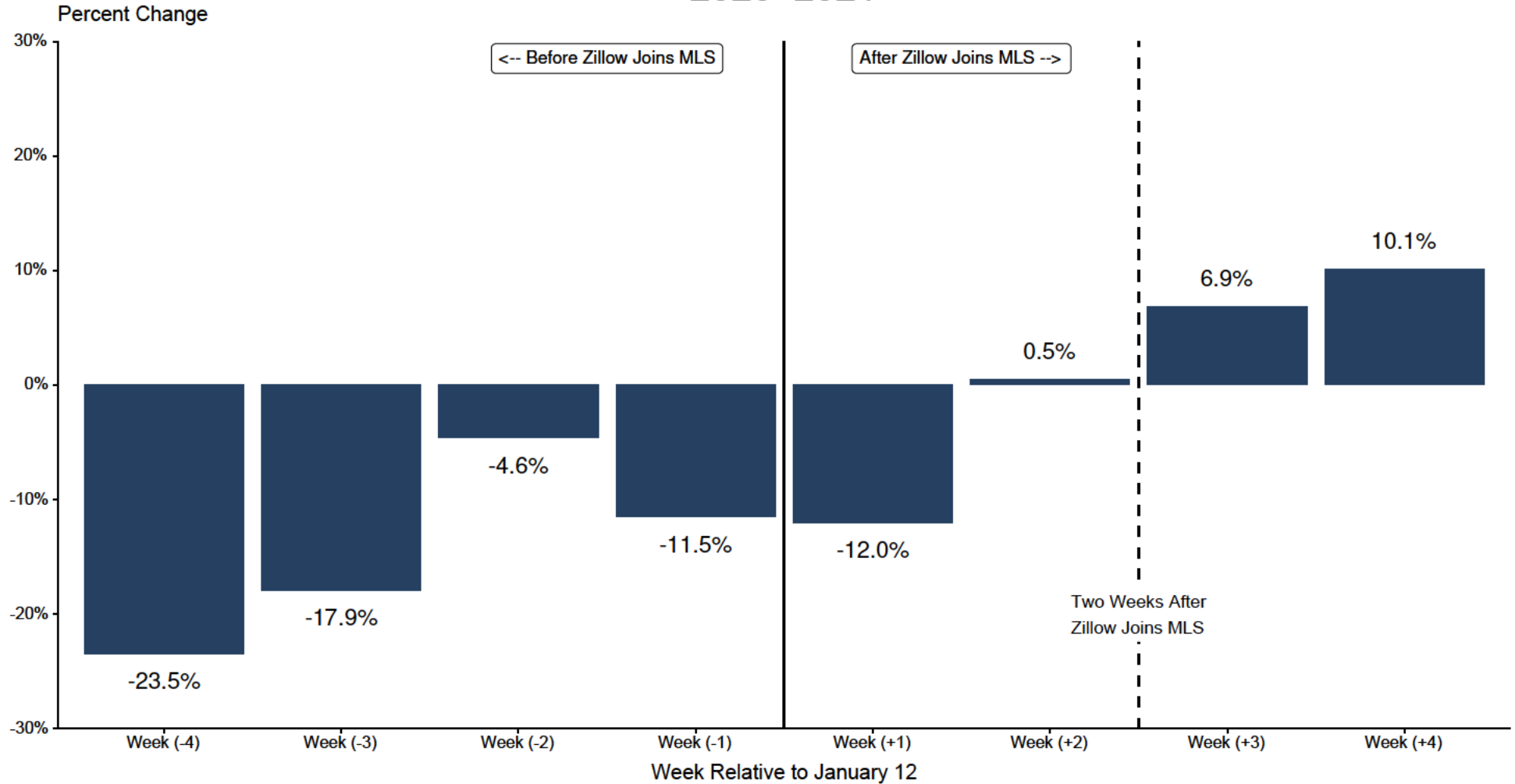


Source: REX data

Note: Each bar displays the growth in weekly showing requests to REX properties per listing relative to the same week in 2020. Weeks are defined as seven consecutive days relative to 1/12, when Zillow joins the MLS. For example, Week (-1) is the seven-day period immediately before 1/12, while Week (+1) is the seven-day period immediately after 1/12. A t-test comparing the difference in means before and after Zillow joins the MLS indicates that the drop in growth rates is significant at the 0.05 level and has p-value 0.016.

Exhibit 6

Growth in Share of REX Properties with No Showings in the Last 14 Days Relative to Prior Year 2020–2021

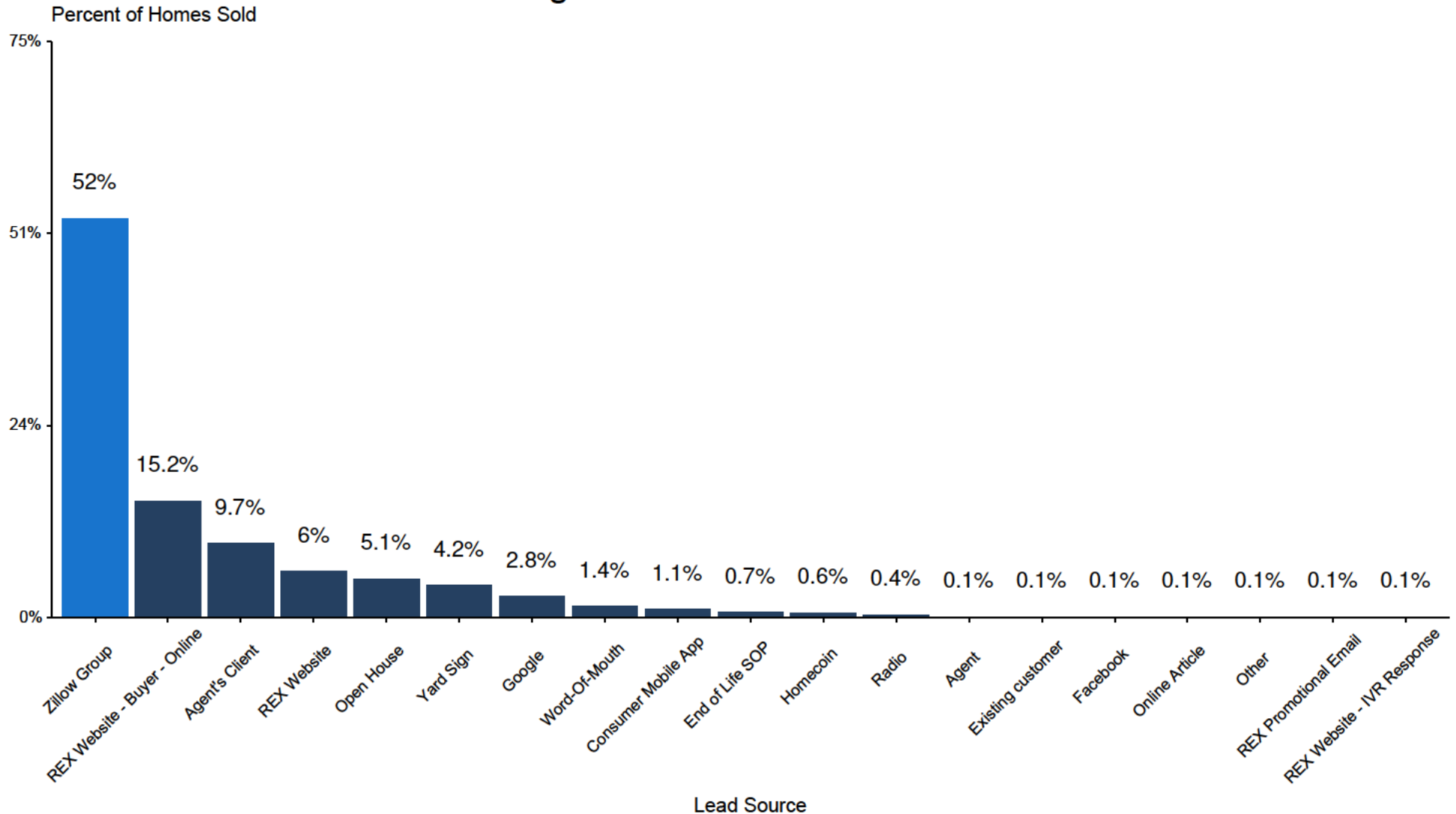


Source: REX data

Note: Each bar displays the growth in the weekly share of REX properties with no showings in the last 14 days relative to the same week in 2020. Weeks are defined as seven consecutive days relative to 1/12, when Zillow joins the MLS. For example, Week (-1) is the seven-day period immediately before 1/12, while Week (+1) the seven-day period immediately after 1/12.

Exhibit 7

Share of REX Properties Sold by Buyer Lead Source August 2019 - December 2020

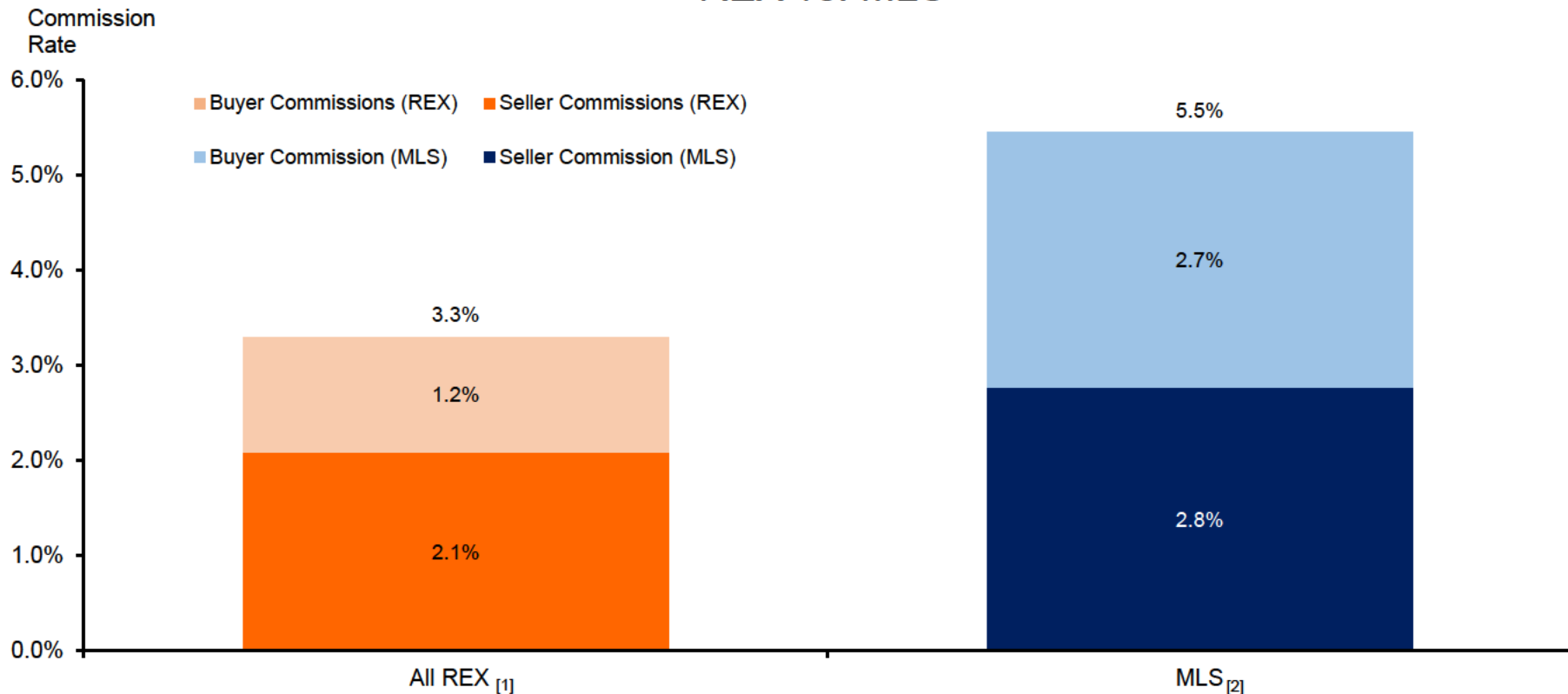


Source: REX data

Note: Properties included are ones sold between August 1, 2019 and December 31, 2020, in which the lead source is known. Zillow Group leads include leads from Zillow, Trulia, and StreetEasy.

Exhibit 8

Average Commission Rates on Properties Sold REX vs. MLS



Source: REX Data; Clever website (<https://listwithclever.com/average-real-estate-commission-rate>); Statista (<https://www.statista.com/statistics/777612/average-commission-rate-realtors-usa/>); Barwick, P. J. and M. Wong (2019), "Competition in the real estate brokerage industry: A critical review." Brookings Economic Studies.

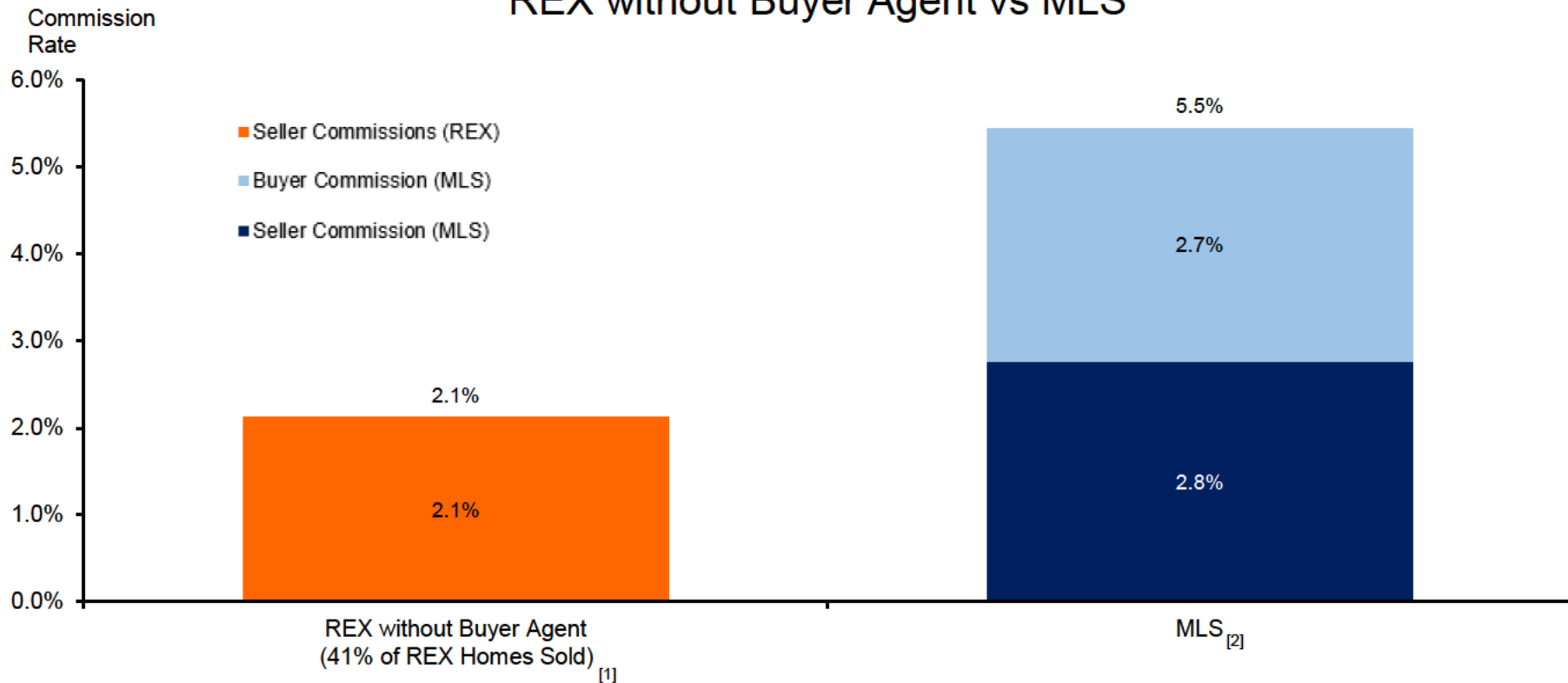
Note:

[1] Average commissions paid on 1,934 REX homes sold between 2019 and 2020. Among these, 59% involved a buyer agent and 41% did not.

[2] MLS commission rates are based on a survey conducted by Clever in 2020. The survey relied on self-reported data from 563 agents and provided averages and ranges of commission rates for both seller's and buyer's agents. These estimates are compatible with other sources. According to the study "Average commission rate for realtors in the U.S., 1992–2019" published by Statista Research Department, the national commission rate was 5.7% in 2019. Barwick et al. (2019) conducted a more localized study focusing on buyer's commission rates, and they found the average buyer commission rate in Boston, MA to be 2.31% in 2018.

Exhibit 9

Average Commission Rates on Properties Sold REX without Buyer Agent vs MLS



Source: REX Data; Clever website (<https://listwithclever.com/average-real-estate-commission-rate/>); Statista (<https://www.statista.com/statistics/777612/average-commission-rate-realtors-usa/>); Barwick, P. J. and M. Wong (2019), "Competition in the real estate brokerage industry: A critical review." Brookings Economic Studies.

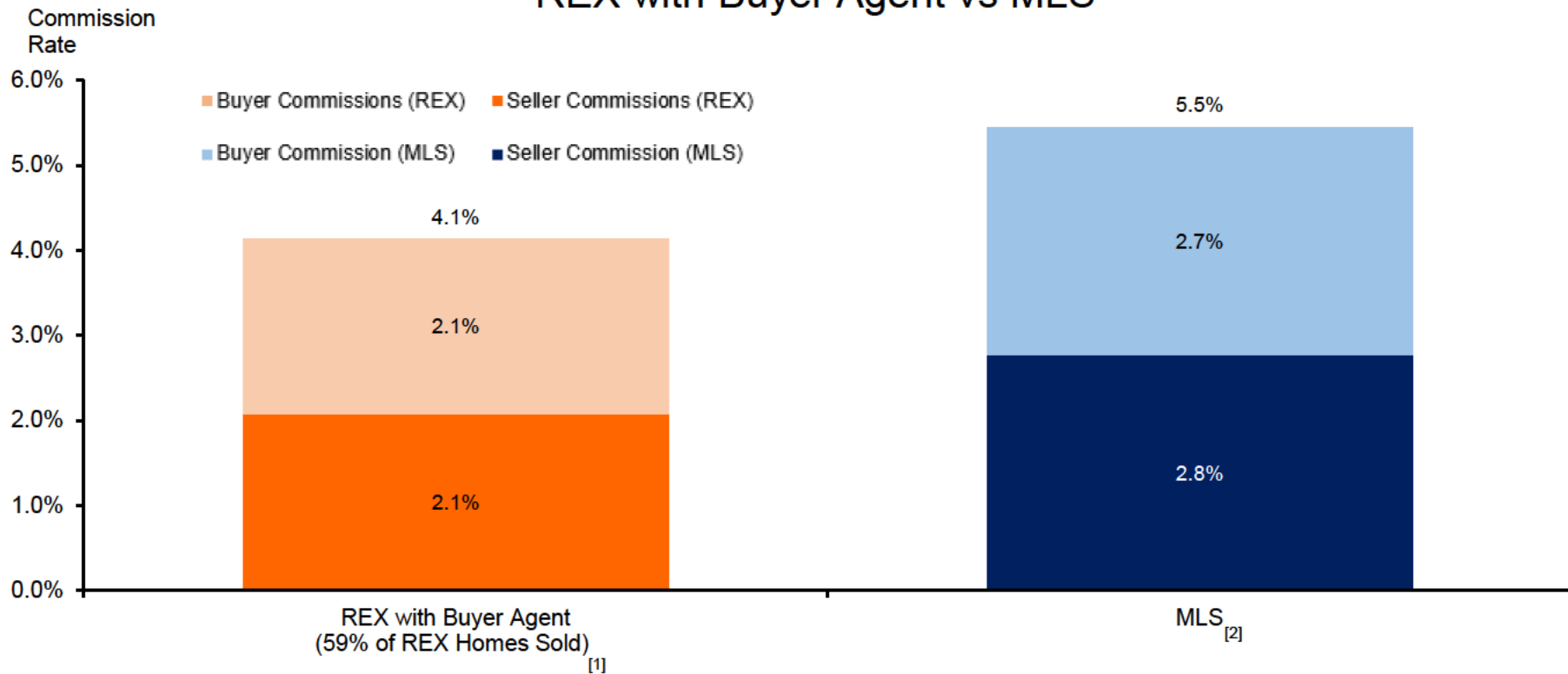
Note:

[1] Average commissions paid on 802 REX homes sold without a buyer agent between 2019 and 2020. These represent approximately 41% of REX homes sold in the period.

[2] MLS commission rates are based on a survey conducted by Clever in 2020. The survey relied on self-reported data from 563 agents and provided averages and ranges of commission rates for both seller's and buyer's agents. These estimates are compatible with other sources. According to the study "Average commission rate for realtors in the U.S., 1992–2019" published by Statista Research Department, the national commission rate was 5.7% in 2019. Barwick et al. (2019) conducted a more localized study focusing on buyer's commission rates, and they found the average buyer commission rate in Boston, MA to be 2.31% in 2018.

Exhibit 10

Average Commission Rates on Properties Sold REX with Buyer Agent vs MLS



Source: REX Data; Clever website (<https://listwithclever.com/average-real-estate-commission-rate>); Statista (<https://www.statista.com/statistics/777612/average-commission-rate-realtors-usa/>); Barwick, P. J. and M. Wong (2019), "Competition in the real estate brokerage industry: A critical review." Brookings Economic Studies.

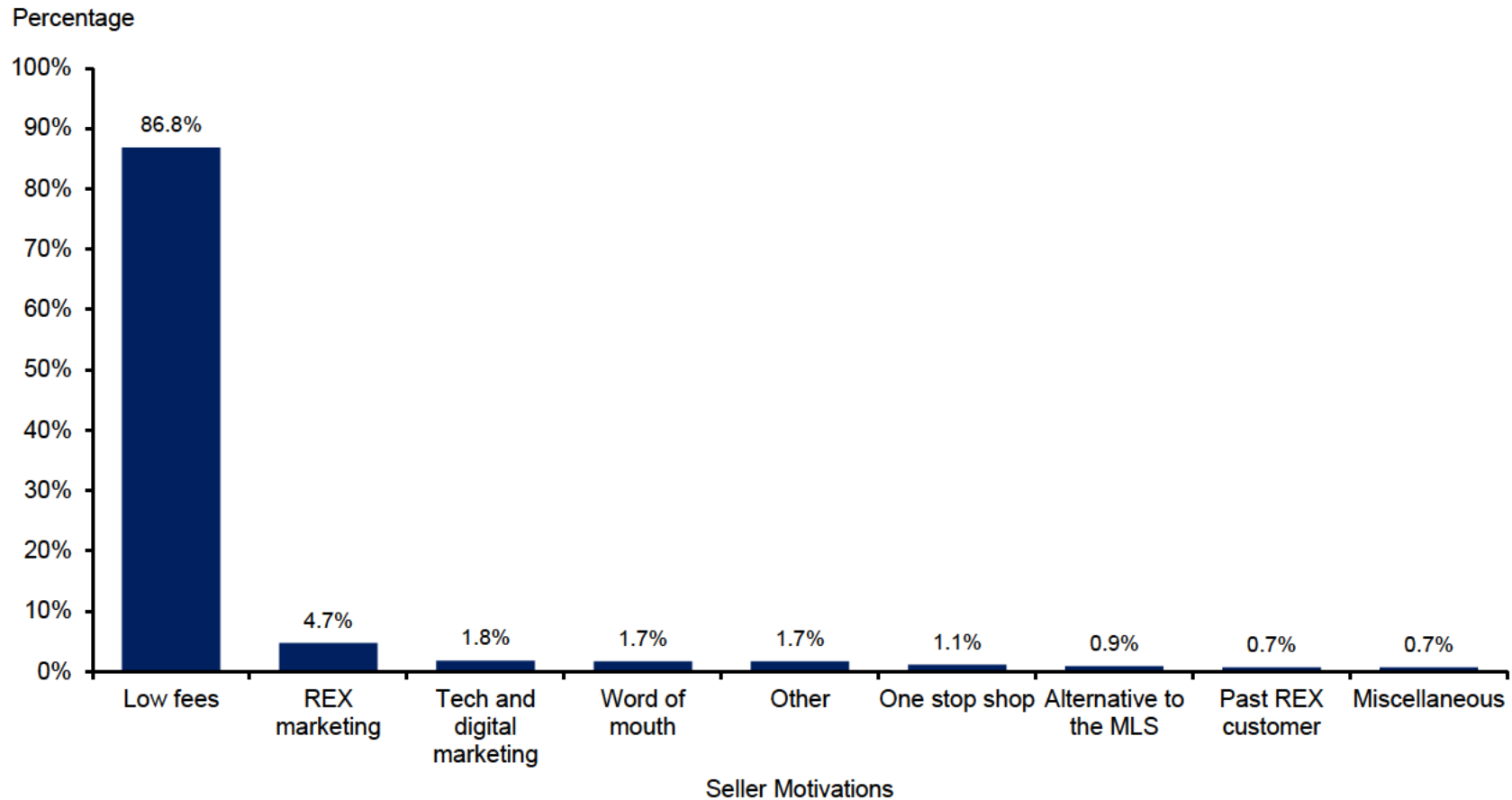
Note:

[1] Average commissions paid on 1,132 REX homes sold with buyer agent involvement between 2019 and 2020. These represent approximately 59% of REX homes sold in the period.

[2] MLS commission rates are based on a survey conducted by Clever in 2020. The survey relied on self-reported data from 563 agents and provided averages and ranges of commission rates for both seller's and buyer's agents. These estimates are compatible with other sources. According to the study "Average commission rate for realtors in the U.S., 1992–2019" published by Statista Research Department, the national commission rate was 5.7% in 2019. Barwick et al. (2019) conducted a more localized study focusing on buyer's commission rates, and they found the average buyer commission rate in Boston, MA to be 2.31% in 2018.

Exhibit 11

Customers' Reported Reasons to List with REX



Source: REX Internal Data

Note: Includes 4,007 responses from potential customers that have contacted REX since April 1, 2020. "Miscellaneous" includes other reported reasons not listed above.